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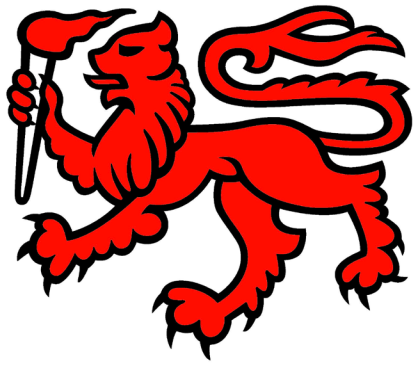

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Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicidal ideations?

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Submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

University of Tasmania

9th January 2019

Statements and Declarations

Declaration of Originality

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Statement of Co-authorship

The author of this thesis was first author on the following paper submitted as appendix 7:

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The author of this thesis was second author on the following paper submitted as appendix 8:

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Statement of Co-Authorship signed document submitted as appendix 10.

Statement of Ethical Conduct

'The research associated with this thesis abides by the International and Australian codes on human and animal experimentation, the guidelines by the Australian Government's Office of the Gene Technology Regulator and the rulings of the Safety, Ethics and Institutional Biosafety Committees of the University.'

Lisa Clegg

9th January 2019

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Abstract

Background

Mental illness is one of the most prevalent health problems globally. In Australia, it is estimated that one in five Australians are diagnosed with a common mental illness each year. In 1992, the decentralisation of mental health services in Australia and the relocation of people living with mental illness from institutionalised care into mainstream society, resulted in a significant increase in the number of patients presenting to primary health care professionals such as paramedics and to emergency departments for assistance with mental illness. The aim of this research was to investigate the attitudes, knowledge and confidence of Ambulance Tasmania (AT) paramedics when assessing and managing patients with mental illness presentations.

Methods

The research comprised a sequential exploratory mixed methods approach with two phases. Phase one of the study was conducted using a semi-structured face to face interview, while phase two was conducted as an online survey. Convenience sampling measures were used to recruit Ambulance Tasmania, Paramedics and Intensive Care Paramedics in phase one and two. The thematic analysis of qualitative data for phase one and two was analysed using two different approaches: the traditional manual method and also by use of Computer-Assisted Qualitative Data Analysis Software (CAQDAS). The quantitative datum was analysed using the Statistical Package for the Social Sciences (SPSS).

Results

Paramedic education and training in managing patients with a mental illness was found to be inadequate and reported to impact patient care and the paramedic/patient experience. In addition to the impact on paramedic confidence, a deficit of education

and training was also linked to increased levels of stigma towards patients with mental illness.

Conclusion

Paramedic education and training in managing patients with a mental illness is paramount to improve the paramedic/patient relationship and positively impact patient care and patient recovery. This research paves the way for the implementation of a national education package and national guidelines to support the development of mental health literacy for paramedics and the delivery of effective care to patients with mental illness.

Contents

Chapter 1 Introduction

1.1 Background

Mental illness is one of the most common health problems globally and in Australia alone, it is estimated that one in five people are diagnosed with a common mental illness each year (Australian Institute of Health and Welfare, 2012).

In 1992, the decentralisation of mental health services in Australia and relocation of people living with mental illness from institutionalised care into mainstream society, resulted in a significant increase in the number of patients presenting to primary health care professionals and emergency departments for assistance with mental illness (Hundertmark, 2002; Shaban, 2004).

The Australian Institute of Health and Welfare (AIHW), reported 3.7% of all presentations to public hospital emergency departments for the period 2015-2016 were for patients with a principle diagnosis of mental illness. Of these, 77.5% were classified as semi-urgent requiring the patient to be seen within 60 minutes of arrival or urgent, where the patient is required to be assessed within 30 minutes. A total of 35.9% of these patients were admitted to hospital (Australian Institute of Health and Welfare, 2017). The classifications of urgent and semi-urgent referred to here are criteria included within the Australasian Triage Scale which provides “nationally consistent standards for the maximum time patients are considered safe to wait for emergency care” (College of Emergency Nursing Australasia, 2015).

It has been reported that ambulance services often facilitate the transport of patients with illness or traumatic conditions from the out of hospital environment to the emergency department (Dunn, Gwinnutt, & Gray, 2007) and in some jurisdictions in the USA, are legally required to transport all patients calling 911, to an emergency department for further assessment by medical staff (Neeki et al., 2016).

1.2 Defining mental illness

The World Health Organization (WHO) defines optimal health, as “a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity” (World Health Organization, 2013). It is clear from this definition, that the WHO recognises good health is not just a physical entity but also comprises the mental health and wellbeing of the individual as well. In defining mental health, consideration is given to the influences of the individuals emotional and social wellbeing and the impact these factors have on interacting with self and others (Australian Bureau of Statistics, 2008). Mental illness therefore, impedes an individual’s capacity to fulfil daily and life goals as it interferes with their cognitive processes as well as their emotional and social abilities.

The American Psychiatric Association (APA) defines mental illnesses as:

> “Health conditions involving changes in thinking, emotion or behaviour (or a combination of these). Mental illnesses are associated with distress and/or problems functioning in social, work or family activities” (American Psychiatric Association, 2015).

The terms mental illness, mental disorder and mental ill-health, are often used interchangeably to refer to a diagnosable health condition that affects a person’s cognition, emotional state and behaviour as well as negatively impacting many aspects of daily life (Kitchener, Jorm, & Kelly, 2017). Whilst the terms mental disorder and mental illness are more commonly used in Australia, Hungerford et al (2012), suggest the word ‘illness’ is often preferred, as it is more closely linked to the theoretical foundations that underpin the biomedical approach to health delivery, which remains a dominant feature within the Australian health care system (Hungerford, Clancy, Hodgson, & Jones, 2012). Given this, the term ‘mental illness’ will be used instead of ‘mental disorder’ throughout this thesis. The terms ‘mental health care’ and ‘mental health education and training’, will also be referred to where appropriate. As this thesis

is embedded in paramedic clinical practice, the term patient will be used when referring to a person presenting with a mental illness.

1.3 Mental health care in Australia

Australia's history of mental health care commenced in the early 1800's when the first lunatic asylum opened in New South Wales. During these times, people with mental illness were hidden away in facilities similar to prisons and supervised by untrained staff who placed no emphasis on treatment and recovery. Restraint was commonly used to 'control' the 'inmates' as they were often seen to be dangerous (Happell, 2007; Keane, 1987). Institutionalisation continued into the early 1900's, with significant changes to mental health care seen from 1950 onwards. This period saw the emergence of major tranquilisers, which replaced the use of restraints in many facilities and the development of a specialised workforce in psychiatric health with the commencement of psychiatric nurse training. This period was also the beginning of deinstitutionalisation and mainstreaming of health services where major psychiatric facilities were closed and psychiatric units became part of the general hospital system (Happell, 2007).

Since 1992, major reforms in mental health care have occurred with the endorsement of the National Mental Health Strategy, which laid the path for major transformations to the delivery of mental health services in Australia. Previously, care provided to patients with a mental illness was delivered under the paternalistic model of health care which centres on the concept that the doctor knows best and it is the responsibility of the doctor to decide the most appropriate action in the delivery of health care to the patient. In their commitment to people living with mental illness, as well as their families and carers, the Australian Government however, has since adopted a patient-centred model of care, putting the patient's values and preferences first. In doing so, the Government vowed that the patient's quality of life would be improved through better-

quality accessible mental health services which promote recovery from mental illness and reduce the overall impact of mental illness, including the associated stigma.

The National Mental Health Strategy provided the framework for mental health care reform and from 1993-2014, included the development of four, five-year National Mental Health plans. The focus was on community based care alternatives, mainstreaming psychiatric and physical health care services, public education, prevention and early intervention, health promotion and recovery, promoting social inclusion and reducing stigma (Department of Health and Ageing, 2013).

As part of this strategy, the National Mental Health Commission was established in January 2012 to provide support to the Australian Government to deliver a mental health system that is sustainable, efficient, person-centred, promotes recovery and reduces the prevalence of mental illness and stigma (National Mental Health Commission, 2016).

In December 2012, the Council of Australian Governments (COAG) agreed to an ongoing commitment to mental health reform and as part of that, approved the Roadmap for National Mental Health Reform which outlined strategies to ensure the ongoing commitment of all governments to develop better mental health services and supports over the following 10 years (Council of Australian Governments, 2012).

Despite the number of reforms in mental health care that have occurred since 1992, a review undertaken by the National Mental Health Commission in 2014, identified "fundamental structural shortcomings in Australia's approach to mental health and suicide prevention" (National Mental Health Commission, 2014). The review was undertaken at the request of the Australian Government with a focus on assessing the adequacy and efficiency of programs and services available to people with a mental illness, as well as their families and carers. Whilst there have been several changes in policy regarding mental health care and suicide prevention schemes with the

commencement of the National Mental Health Strategy in 1992, the review found mental health care and suicide prevention remained ineffectual. It was reported that stigma towards people with mental illness was still prevalent in our society, the current mental health system was fragmented, poorly funded and not user friendly, which resulted in patients with a mental illness not being supported in their treatment and recovery. From the review, the following recommendations were made:

1. "*Set clear roles and accountabilities to shape a person-centred mental health system;*
2. *Agree and implement national targets and local organisational performance measures;*
3. *Shift funding priorities from hospitals and income support to community and primary health care services;*
4. *Empower and support self-care and implement a new model of stepped care across Australia;*
5. *Promote the wellbeing and mental health of the Australian community, beginning with a healthy start to life;*
6. *Expand dedicated mental health and social and emotional wellbeing teams for Aboriginal and Torres Strait Islander people;*
7. *Reduce suicides and suicide attempts by 50 per cent over the next decade;*
8. *Build workforce and research capacity to support systems change;*
9. *Improve access to services and support through innovative technologies."*

(National Mental Health Commission, 2014, pp. 16-17).

Following on from the 2014 review, the 2016 National Report on Mental Health and Suicide Prevention released by the National Mental Health Commission, outlined the Australian Government's response to the 2014 report, as well as identified areas that still required further development. In response to the 2014 report, the Australian Government sanctioned a new approach to the delivery of services to patients with a mental illness and suicide prevention, focussing on person-centred and stepped care approaches, regionalisation, early intervention, digital mental health and national leadership (National Mental Health Commission, 2017).

Based on these recommendations, the Fifth National Mental Health Plan 2017 – 2022 aims to promote recovery from mental illness, reduce the stigma associated with mental illness, improve the physical wellbeing of people with mental illness and overall,

develop systems where people can experience good mental health and wellbeing (Australian Government, 2017a).

1.4 Education and training in mental health care for frontline health providers and emergency services personnel

Despite these reforms, support for patients with mental illness remains inadequate and is further compromised by reduced access to services outside of traditional business hours.

Accessing health care outside of the hospital environment is often difficult for patients with an acute mental illness presentation and as such, paramedics are often the first point of contact for patients as they can be accessed 24 hours a day, seven days per week (O'Sullivan, 2014; Rees, Rapport, & Snooks, 2015; Rees, Rapport, Snooks, John, & Patel, 2017; Rees, Rapport, Thomas, John, & Snooks, 2014). It is clear that paramedics play a key role in the initial assessment and management of this patient group, however studies have reported that due to inadequate education and training, paramedics feel underprepared in their abilities to provide the best health care to patients with mental illness (Roberts & Henderson, 2009; Shaban, 2004), potentially impeding the patient's recovery from their illness. A review of Ambulance Tasmania's clinical and operational services found that AT paramedics are well supported through their education and training, equipment and clinical systems, to appropriately assess and manage patients with acute, time critical presentations. AT however, was criticised for the lack of attention given to preparing paramedics to be able to assess and manage patients with primary health care needs such as an acute mental illness presentation (Tasmanian Government, 2017c).

Similar findings are described across other health care disciplines and emergency services personnel as well, with nurses, medical practitioners, pharmacists and police officers also reporting that they are often required to assist patients with mental illness

presentations, however do not feel they have been provided adequate education, training and support to do so (Acharya, Hirachan, Mandel, & van Dyke, 2016; Happell & McAllister, 2015; Herrington & Pope, 2014; Phokeo, Sproule, & Raman-Wilms, 2004; Santucci, Sather, & Baker, 2003).

A number of studies have also reported a link between poor education and training in managing patients with a mental illness and stigma towards patients with mental illness, which has additional implications for the patient's management and recovery (Adshead, Collier, & Kennedy, 2015; Ahmead, Rahhal, & Baker, 2010; Mukherjee, Fialho, Wijetunge, Checinski, & Surgenor, 2002).

Stigma is defined as the 'negative attitudes' displayed towards individuals or groups, based on perceived differences such as culture, gender, sexual preferences and mental illness. Stigmatisation and marginalisation develop in environments where cultural norms exist. Personal attributes and attitudes are given a positive or negative value which leads to the stereotyping of individuals with attributes or attitudes that clash with widely accepted social norms. Negative attributes or attitudes may invoke feelings of fear, pity, or disgust in a culture where most individuals accept and value their social norms. This can result in those individuals who reject or cannot conform to socially accepted norms being shunned, pitied and vilified. For example, in most western cultures, good mental health is highly valued. Behaviours and cognitions of people with mental illness can vary from socially acceptable behaviours and thought processes. This leads to categorization (labelling) in an attempt to explain/understand the behaviours which in turn leads to stereotyping individuals as a result of these "labels" (Link & Phelan, 2001). Stigma impacts every facet of a person's life from relationships, cultural acceptance, social isolation, employment and income (Adewuya & Oguntade, 2007; Hungerford et al., 2012). Throughout this thesis, the term 'stigma' will be used to

describe the negative attitudes and behaviours displayed towards patients with mental illness.

Additionally, education and training in providing care to patients with a mental illness plays a pivotal role in developing mental health literacy skills which when low, also impact stigma towards patients with mental illness. The tenets of mental health literacy include accessing and understanding information about mental illness which helps to promote recognition and recovery. This may include knowledge about the different types of mental illness, risk factors and causes, as well as management strategies to aid in recovery (Jorm, 2000)

The themes of education and training, mental health literacy and stigma will be explored further within this thesis.

1.5 Research aims

The aim of this research was to explore the lived experience of ambulance Tasmania (AT) paramedics when called to assist patients with mental illness with reference to their education and training in mental health care and their confidence and competence in providing care for patients with mental illness presentations. The research question was:

Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicidal ideations?

To achieve this, the following set of tasks were undertaken to inform the research question:

1 To determine the prevalence of paramedic call outs to attend to patients with mental illness presentations;
2 To explore the self-perceptions of mental health literacy levels in paramedics;
3 To identify perceived gaps in mental health literacy;

4 To investigate the attitudes, behaviours and confidence of paramedics when managing patients with mental illness and or suicidal ideations;
5 To explore the link between confidence measures and education and training;
6 To Investigate the paramedic's level of understanding of the *Mental Health Act 2013* and explore their level of confidence in enacting this new legislation post implementation and training.

1.6 Methodology

A sequential exploratory mixed methods approach consisting of two phases was adopted for this research. Exploratory strategies are used by the researcher to build on the results of the first qualitative phase by incorporating quantitative data collection and analysis in the second phase. Phase one espoused a qualitative research approach to interview forty-two AT paramedics working across the state of Tasmania. Exploring the following themes: mental health education; patient assessment and management of patients with a mental illness; stigma attached to mental illness; impact of organisational culture on bias; legal and ethical issues pertaining to providing care to patients with a mental illness: semi-structured interviews were preferenced as this provided the paramedic participants the opportunity to tell their story and share their experiences of assisting patients with mental illness.

Phase two utilised an online survey with structured Likert type, open-ended and free text questions. The themes that emerged from phase one informed the generation of structured questions in the survey and through the use of open-ended questions, phase two also provided the participants an avenue to expand on their responses to the structured questions resulting in a richer data set.

1.7 Significance of this research

The significance of this study cannot be understated. Given the prevalence of mental illness and the devastating effects the burden of mental illness can have on quality of life, all research undertaken with the aim of improving health care for patients with

mental illness is imperative. There is a paucity of research exploring paramedic mental health literacy and the impact this may have on patient care. What has been identified is that the lack of paramedic education and training for managing patients with a mental illness negatively impacts the paramedic's confidence and competence to provide effective care to these patients. This study was the first of its kind undertaken with Ambulance Tasmania (AT) paramedics and given that the research was conducted during a period of mental health legislative change in Tasmania which resulted in a significant change to practice for AT paramedics, the research was timely and justified.

Paramedics in Australia will become a regulating body under the National Registration and Accreditation Scheme in 2018, bringing paramedicine in line with other registered health professions such as medicine and nursing. Paramedics will need to be able to demonstrate to the Australian Health Practitioner Regulation Agency (AHPRA) that they meet the requirements for registration, which include maintaining knowledge and clinical skills through continuing professional development. This will be a critical era for paramedicine and paramedic education programs, with the intention that the findings from this research will be influential in directing change to paramedic education and training in providing care to patients with a mental illness. This will provide an opportunity to develop national standards in paramedic care for the mentally ill with the aim of improving paramedic confidence and competence in assessing and managing patients with a mental illness in the out of hospital setting, resulting in positive impacts for the patient experience and their recovery.

1.8 Thesis structure

The following seven chapters will comprise this research.

1. Introduction
    - This chapter will introduce the thesis by defining mental illness and describing the changes in proving care to patients with mental illness that

have occurred in Australia. The research aims and methodology will also be introduced.

2. Literature review
    - This chapter will present a review of the literature relating to mental illness and providing care to patients with mental illness. Topics such as education and training, stigma, mental health literacy and assessment and management of patients with mental illness will be explored. As research specific to paramedic practice is scarce, the literature review will also include other professions such as doctors, nurses, pharmacists and police, as these health professionals and emergency personnel are often the first contact for patients with mental illness presentations.
3. Tasmanian perspective
    - This chapter will provide a discussion around the socioeconomic, environmental and health factors unique to Tasmania. The challenges of providing care to patients with a mental illness in Tasmania will also be explored.
4. Methodology
    - This chapter will provide a detailed discussion of the theoretical framework and techniques used to answer the research question.
5. Results
    - This chapter will present the results of the study which were conducted over two phases.
6. Discussion
    - This chapter will provide a detailed discussion of the study findings.
7. Conclusion
    - This chapter closes the thesis by summarising the main findings, identifying and explaining the limitations of the study and discussing the

implications for paramedic clinical practice in the assessment and management of patients with mental illness presentations.

Chapter 1 Summary

In summary, mental illness is recognised as one of the most common health problems worldwide and in Australia, it has been reported that one in five Australians will develop a common mental illness in any one year (Australian Institute of Health and Welfare, 2012). Despite the gravity of this health problem from the individual, family and community perspectives, health care for patients with a mental illness in Australia continues to be inadequate. Mental health services were reported to be poorly resourced and not user friendly and further hampered by limited access for patients after traditional working hours. This results in patients seeking assistance from services that are accessible outside of the traditional hours including paramedics, police, pharmacists, nurses and medical practitioners. Research has reported a lack of confidence in the abilities in these health and emergency professionals to provide adequate care to patients with mental illness due to a lack of education and training in the area. Stigma towards patients with mental illness from health care professionals has also been linked to poor education and training in mental health care. Given this, it could be argued that an inadequate health care system and poor education and training in managing patients with a mental illness for front line health care providers and emergency services workers, not only impacts significantly on the patient's immediate care, but also on their overall recovery as well.

This concept will be explored further in the following chapter which will provide an analysis and critique of the literature pertaining to care of patients with mental illness.

Chapter 2 Literature review

The previous chapter has provided an introduction to the thesis which identified that mental illness is one of the most common problems globally, with one in five Australians diagnosed with a common mental illness each year. In 1992, major reforms in mental care in Australia, led to deinstitutionalisation of mental health services and the beginning of mainstreaming of health care services. This also resulted in a significant increase in the number of patients seeking assistance for their mental illness through primary health care and emergency health care services and despite additional reforms in mental health care, support for patients with mental illness remains inadequate.

This chapter presents a review of the literature pertaining to mental illness in Australia and mental health care in the out of hospital setting, incorporating an examination of research pertaining to the paramedic's knowledge, attitudes, skills and confidence levels when called to assist patients with a mental illness and or suicidal ideation. As there is a paucity of paramedic research in providing care to patients with a mental illness, this review will also include literature dedicated to the knowledge, attitudes, skills and confidence levels of other health professionals and emergency personnel, such as medical practitioners, nurses, pharmacists and police, when called upon to assist patients presenting with a mental illness and or suicidal ideation. As with paramedics, this cohort of health and emergency service professionals are often seen to be at the 'coalface' in terms of delivering primary mental health care to patients with a mental illness and therefore the results of research undertaken in this field can be used to inform paramedic practice.

2.1 Search strategy

An extensive review of the literature was undertaken using CINAHL, Medline via PubMed, PsycINFO, ERIC via EBSCO and Scopus databases. In addition, reference lists of retrieved articles were also searched. Search terms included the following

- Paramedic AND EMT AND EMS AND mental health care;
- Paramedic student AND mental health care;
- Nurse AND Nursing AND mental health care;
- Nursing student AND mental health care;
- General Practitioner AND Physician AND Medical Practitioner AND mental health care;
- Medical student AND mental health care;
- Paramedic AND EMT AND EMS AND perceptions AND mental health training;
- General Practitioner AND Physician AND Medical Practitioner AND perceptions AND mental health training;
- Nurse AND Nursing AND perceptions AND mental health training;
- Pharmacist/s AND perceptions AND mental health training;
- Police AND perceptions AND mental health training;
- Stigma AND mental health AND Paramedic AND EMT AND EMS;
- Stigma AND mental health AND Nurse AND Nursing;
- Stigma AND mental health AND General Practitioner AND Physician AND Medical Practitioner;
- Stigma AND mental health AND Health care worker;
- Legal AND Ethical AND mental health AND mental health care.

Other terms such as confidence, competence, health professional, emergency department, psychiatric and mental health literacy were also used in the search strategy.

The search was not limited to date which allowed for any historical literature pertaining to care of patients with mental illness to also be considered. The search criteria did include English language, peer reviewed and full text available.

National and International ambulance clinical practice guidelines and Government documents were reviewed separately.

2.2 Mental illness in Australia

The burden of living with any illness/disease is measured using the 'disability–adjusted-life-year' (DALY) scale. Disease burden considers health problems in relation to pecuniary loss as well as mortality and morbidity. The DALY identifies the number of healthy years lost (non-fatal burden) and years of life lost (fatal burden) due to diseases. In 2011, the Australian Burden of Disease Study reported mental illness and substance use disorders were the third highest (12%) regarding burden of disease, behind cancer (19%) and cardiovascular disease (15%). The study also found that mental illness and substance use disorders were the leading cause of disease burden amongst Aboriginal and Torres Strait Islander people (Australian Institute of Health and Welfare, 2011).

As previously mentioned, it is estimated that one in five Australians will be diagnosed with a common mental illness each year (Australian Bureau of Statistics, 2008). These findings were based on the 2007 National Survey of Mental Health and Wellbeing which surveyed a representative sample of 8,841 people aged 16-85 years living in private housing across Australia. Information was collected on the prevalence of mental illness (across the lifespan as well as the previous 12 months), levels of impairment, associated physical health conditions, utilisation of different health services and social networks as well as demographic and socioeconomic characteristics. Anxiety disorders were reported as the most prevalent mental illness (14.4%), followed by affective disorders (6.2%) and substance use disorders (5.1%). Women had a higher prevalence of anxiety and affective disorders than men, however men presented with a higher prevalence of substance use disorders than women (Australian Bureau of Statistics, 2008). Of interest, the American Psychiatric Association (APA) reports

similar findings with 19% of United States of America (USA) adults experiencing some form of mental illness in a given year (American Psychiatric Association, 2015).

The Australian Government acknowledged that a significant amount of time had passed since the last adult survey of mental health was conducted and suggested cost-effective measures should be considered to enable an update of findings on adult mental health prevalence (Australian Institute of Health and Welfare, 2018).

In 2010, the second Australian national survey of psychotic illness was undertaken to determine the prevalence of people with a serious mental illness, as well as the number of people accessing specialised mental health services for treatment of their mental illness (Morgan et al., 2012). According to the APA, psychotic disorders include schizophrenia spectrum and are defined by "abnormalities in one or more of the following five domains: delusions, hallucinations, disorganised thinking (speech), grossly disorganised or abnormal motor behaviour (including catatonia), and negative symptoms". Delusions are further described as firmly held beliefs that are bizarre and implausible, whereas hallucinations present as false sensory perceptions, the most common being auditory. Delusions and hallucinations are examples of positive symptoms as they reflect an excess or distortion of normal thinking, whereas, negative symptoms are described as a loss of normal function such as affect flattening (American Psychiatric Association, 2013).

Results from the 2010 second Australian national survey of psychotic illness, found that an estimated 0.5% of the population (64,000 people) had a psychotic disorder and were being treated within public specialised mental health services. With 3.7 cases per 1000, males were more likely to develop a psychotic disorder, with prevalence highest in the 25-34 age group. Schizophrenia was reported to be the most common psychotic disorder for both men and women, however the overall percentage was higher in men. With 68% of people experiencing their first psychotic episode before age 25, early

onset of a psychotic disorder was reported to have the potential to increase the burden for the individual even further as this is a defining period in a person's life in regard to building relationships, strengthening life skills such as education and seeking employment. Findings of the study supported this notion of increased burden, with reports that an estimated 38% of people living with a psychotic disorder had not obtained a school certificate compared with 25% of the general population with almost one in five people living with a psychotic disorder reported to have reading and writing difficulties. It was reported that only 32% of participants with a psychotic illness had been in paid employment twelve months prior to the survey, with an additional 21.5% of participants in paid employment the week prior to the survey. This is compared to 72.5% of the general population who were in paid employment at the same time. The study also found a strong link between serious mental illness and physical illness, with 27% of participants reporting an associated diagnosis of cardiac and circulatory problems and 21% with diabetes. In comparison, the general population report rates of 16% and 6% respectively (Morgan et al., 2012).

The burden of living with a mental illness is not only confined to the adult population, with the *Mental Health of Young People* survey conducted in 2000 reporting nearly 600,000 children and adolescents aged 4-17 years had a significant mental illness problem. This was the first survey conducted in Australia which investigated the prevalence of mental illness in children and adolescents. A representative sample of 4,500 children aged 4-17 were recruited from all states and territories, with information being collected from parents of the participants as well as participants aged 13-17. With a response rate of 70%, the participants were assessed against the Child Behaviour Checklist to see if they met the criteria for the following: Depressive Disorder; Attention Deficit Hyperactivity Disorder (ADHD) and Conduct Disorder. The study found 14.1% of children and adolescents in Australia had a mental illness with

males in the 4-12 category having a higher prevalence at 15.0% followed by females in the 4-12 category at 14.4%, males 13-17 age group at 13.4% with females 13-17 age group the lowest prevalence at 12.8%. It was also reported that only one out of four children with a mental illness received help for their illness. Children living in low socioeconomic environments with a single parent or step/blended family model were found to be more at risk for developing a mental illness (Australian Government, 2000).

This study was followed up with a second much larger survey '*Young Minds Matter'* in 2013-2014. As with the first survey study, households with children aged 4-17 were approached to participate. Of the 76,606 households contacted, a total of 6,310 parents and carers and 2,967 children and adolescents agreed to participate. Similar to findings from the first study, almost 1 in 7 (14%) of children aged 4-17 were assessed as having a mental illness in the previous 12 months. Attention Deficit Hyperactivity Disorder (ADHD) was the most common mental illness followed by anxiety disorders and major depressive disorder. Anxiety disorders were included in the second study but were excluded from the first study due to complex assessment criteria (Lawrence et al., 2015).

Key findings from the 'National Health Survey: First Results, 2014-2015', identified mental and behavioural problems as the number one major long-term health condition in 2014-2015. Four million Australians reported having mental illness and behavioural problems compared with 1.2 million having heart disease and a further 370,100 people living with cancer (Australian Bureau of Statistics, 2015b).

In the 2017-2018 period, the number of Australians with mental illness and behavioural problems had increased to 4.8 million or 20.1% of the population, an increase of 2.6% from the 2014-2015 period. Rates of anxiety and depression in the Australian population had also increased in 2017-2018. Mental illness and behavioural problems

continued to be the number one chronic health condition in 2017-2018 (Australian Bureau of Statistics, 2018).

Whilst there are reported to be a number of risk factors for suicidal behaviours such as exposure to abuse and violence, a link between mental illness and suicidality has been well established (World Health Organization, 2017). Whilst suicide was reported to be the 13th leading cause of death in Australia in 2015 with 3027 people dying from intentional self-harm, it was the leading cause of death for all people aged 15 - 44 years and the second leading cause of death for people aged 45 – 54 years. Suicide has also been identified as the leading cause of death In Tasmania, with the standardised death rate at 16.3 deaths per 100,000 persons which was second highest in the country behind the Northern Territory and significantly higher than the National rate of 12.6 deaths per 100,000 persons (Australian Bureau of Statistics, 2015a).

2.3 Education and training in paramedic practice

The evolution of paramedic education and training has had a significant impact in the transformation of paramedic roles from ambulance drivers and stretcher bearers, to highly respected health care clinicians (J. Walker, 2009). Paramedic education has evolved from an apprentice model delivered by ambulance state-based education units, to an undergraduate and post graduate qualification offered by several Australian Universities. In 1994, Charles Sturt University in New South Wales, established the Bachelor of Health Science (pre-hospital care), the first paramedic undergraduate degree offered in Australia (Lord, 2003; J. Walker, 2009).

The scope of practice of a paramedic however, is extensive and a challenge to paramedic education is the ability to equip paramedics to be able to make insightful clinical decisions, in often dynamic, chaotic environments and deliver optimum care to all patients irrespective of their underlying health problem. Despite the move into the higher education sector, it was not until 2005 when the Council of Ambulance

Authorities Inc (CAA), through its Paramedic Education Program Accreditation Scheme (PEPAS) established accreditation guidelines for tertiary entry level or entry to practice paramedic courses, bringing paramedic education in line with other accredited courses such as medicine and nursing. Currently there are 22 universities across Australia and New Zealand offering CAA accredited paramedic degrees (The Council of Ambulance Authorities Inc, 2017).

The CAA represents all Australian and New Zealand ambulance services and through collaboration with the Health Professional Council in the United Kingdom and Paramedics Australasia, have developed the Paramedic Professional Competency Standards (PPCS) which provide the framework for paramedic education and training within industry, as well as informs higher education curriculum design to ensure programs meet the needs of contemporary paramedic clinicians to deliver evidence-based out of hospital care to patients presenting with acute and chronic health disorders. As part of the accreditation process, universities must demonstrate how their paramedic curriculum design meets the requirements of the PPCS (The Council of Ambulance Authorities, 2013). From December 2018, with paramedicine being a registered body under the Australian Health Practitioner Regulation Agency (AHPRA), the Paramedicine Board of Australia will be responsible for accreditation of paramedic curriculum.

2.4 Education and training in mental health care: paramedic perspective

Paramedics need to be competent in assessing and managing patients across a wide spectrum of illness and injury presentations, however paramedic curriculum has focussed heavily on the recognition and treatment of patients with physical health problems and traumatic injuries (Rees et al., 2017). As a result, paramedic education and training for managing patients with a mental illness has been reported to be insufficient in providing paramedics with the knowledge and skill set required to

undertake a clinical assessment and develop a management plan for this patient group (Roberts & Henderson, 2009; Shaban, 2004).

This lack of emphasis applied to educating paramedics about managing patients with a mental illness, is further supported by the shortage of research undertaken in this area with a search of the literature identifying only two studies exploring Australian paramedic education in mental health care (Roberts & Henderson, 2009; Shaban, 2004).

In their study, Roberts and Henderson explored the perceptions of paramedics employed by South Australian Ambulance Service (SAAS), with regard to their "role, education and training, organisational culture and interaction with allied health professionals" when assisting patients with mental illness. The mixed methods study compared data collected from the SAAS Clinical Database system with the paramedic's own perception of workload and time on scene. Workload included initial patient call outs as well as re-assessment of the same patient, often referred to as the 'frequent flyer patient'. Paramedics' perceptions were recorded through a survey study where 150 surveys were distributed to career paramedics employed by SAAS. With an overall response rate of 49.3% (n=74), 50% of respondents (n=37) reported that 10-20% of their workload was directed to attending cases triaged as 'psychiatric' with a further 24.3% (n=18) reporting the number of call outs was greater than 20% of their overall workload. In comparison, data collected from the SAAS Clinical Database (which includes initial call taker information and information recorded by the paramedic on scene), found in 2001-2002, the total number of cases dispatched was 171,956 compared with 3078 (1.78%) psychiatric cases. This increased in 2005-2006 when the total number of cases dispatched was 201,080 compared with 4,866 (2.41%) psychiatric cases. Paramedics also perceived the amount of time they spent on scene attending to a patient with a mental illness presentation was between 20-40 minutes,

however data collected from the SAAS Clinical Database, reported time on scene attending to patients with mental illnesses, was between one and ten minutes. Paramedics also reported that attendance to the same patient presenting with the same mental illness was common, however this data was not captured on the SAAS Clinical Database and therefore no comparison could be made. Focus groups were also used as a source of data collection in this study. Participants included university paramedic educators who were also working on road as a paramedic and student intensive care paramedics, where themes such as education and training and organisational culture were explored. Overall, despite the majority of paramedic participants recognising the importance of education and training in developing knowledge, skills and confidence to assess and manage patients with mental illness presentations, the study found that this was an area requiring further development as the educational needs of the paramedics were not being met (Roberts & Henderson, 2009).

One of the interesting findings from this study that the authors were unable to explain, was the degree in the difference between paramedics' perceptions of their workload in mental health care, compared with the data sourced from the SAAS Clinical Database. The authors did suggest that as the data imported into the database is dependent on information collected by the communication officer as well as what is uploaded by the paramedic on scene, questions could be raised about its reliability, given the fact that there were significant differences in the database results with just under 2.5% of total call dispatches reported to be to assist patients with mental illnesses compared with the paramedics reporting up to 30% of their case load was for the same call outs. The disparities with time on scene were also noteworthy and warranted further exploration. Overall, the recognition that education and training in providing care to patients with a mental illness was pivotal in developing the necessary skills to assist these patients,

and the need to improve the overall patient and paramedic experience when managing these cases, was shown to be significant and warrants further research in this area (Roberts & Henderson, 2009).

In his study, Shaban (2004) reported the education and training resources specific to mental health care for Queensland Ambulance Service (QAS) paramedics was not accessible and as a result, suggested QAS paramedics were not provided the knowledge and skills to undertake a comprehensive mental health assessment and develop a management pathway plan for the patient. The author examined all education and training materials used during the period 1991-2003, which also coincided with a change to mental health legislation in Queensland with the release of the *Mental Health Act 2000* (Shaban, 2004). Under this act QAS paramedics were authorised to place a patient on an emergency examination order (EEO), if they believed the patient met the following criteria:

- the person has a mental illness;
- because of the person's illness there is an imminent risk of significant physical harm being sustained by the person or someone else;
- proceeding under division 2 (EEO by a psychiatrist) would cause a dangerous delay and significantly increase the risk of harm to the person or someone else;
- the person should be taken to an authorised mental health service for examination to decide whether a request and recommendation for assessment should be made for the person (Queensland Government, 2012).

Placing a patient on an EEO results in the patient being taken into protective custody and taken to a mental health facility for an involuntary assessment. Given the requirements to place a person under an EEO and the ramifications of doing so, it is essential that paramedics have a sound understanding of mental illness and mental health legislation, however QAS paramedics expressed their concern at the time to be able to satisfy the new legislative requirements due to poor education and training in mental health care. In response to paramedic concerns, QAS developed an

educational program to help support the development of mental health assessment and management skills, as well as published a protocol (as part of the QAS clinical practice manual), to help guide paramedics in providing management to patients with an acute mental illness presentation. The protocol however was problematic, as the information provided was at odds with the legislative requirements as set out in the *Mental Health Act 2000*, further adding to the paramedic's lack of confidence in providing care to patients presenting with a mental illness (Shaban, 2004)

In summary, the research undertaken by Roberts and Henderson and Shaban, found the inadequacies of paramedic education and training in two Australian ambulance services resulted in decreased confidence levels in paramedics to be able to assess and manage patients presenting with a mental illness. Given these findings, it is likely that this lack of knowledge, skills and confidence could impact negatively on the patient's overall experience and health care outcomes. The lack of paramedic confidence in managing patients with a mental illness has implications for the overall paramedic/patient relationship, further compromising patient care.

2.4.1 Education and training in mental health care: primary health perspectives

According to the Department of Health, primary health care is reported to be the 'frontline' of Australia's health care system and can be delivered by a number of health professionals such as paramedics, General Practitioners (GPs), nurses, health care assistants and pharmacists (Department of Health, 2013). In addition to physical health care, proving care to patients with mental illness is a fundamental role of the primary health care professional and therefore it is reasonable that an investigation into mental health education and training for these health professionals is undertaken.

In their exploration of the education and training needs of primary health care professionals to manage patients with a mental illness, Russell and Potter (2002) referred to previous health policies in the United Kingdom set out by the Department of

Health in 1999, which emphasized the need for all primary health care professionals to be able to competently assess and manage patients with common mental illnesses. It was argued that this was an essential factor in mental health promotion as well as reducing morbidity from mental illness. It was postulated by the authors that issues relating to mental illness and mental health care may differ for mainstream mental health professionals and primary health care professionals and therefore, education and training needs may also need to be adapted to meet the contextual needs. To explore this hypothesis further, focus groups were conducted with primary health care professionals (n=37) and carers of consumers of mental health services (n=17) in the Mid Devon community to identify current mental health issues in primary health care. The professional group included nurses from school, community, learning disabilities, midwifery and psychiatric domains as well as general practice. After a general discussion about mental illness, the health care professional group participants were asked to consider "clinical issues arising in their clinical practice in relation to five common mental health domains"; depression, anxiety, substance abuse, eating disorders and psychoses. To further explore any issues that were unclear, semi-structured interviews were then undertaken with participants purposively selected to represent each of the professional disciplines. Separate focus groups were organised with the carers who were asked to describe issues they perceived in mental health care which was established from their own experiences.

As reported by the authors, the study found that primary health care professionals had difficulty in recognising a depressive illness or separating depression from 'sadness' or bereavement. Similarly, the participants found separating clinical presentations of anxiety, such as difficulty with breathing and chest pain, from physical illness such as asthma or heart disease, which resulted in patients undergoing invasive and costly investigations which were unnecessary. Patients with psychotic illnesses were often

viewed as being aggressive, however, the participants reported little education and training was given to “understanding the causes and consequences of anger and aggression” with the focus of training being around restraint. Improved knowledge and understanding to enable early detection and treatment of eating disorders and substance abuse disorders was a recurrent theme identified by the participants. It was also reported that the lack of specialist alcohol services for patients over 65 years was of concern as this often led to abuse being undetected or treated. As patients often present without an accompanying history to primary health care workers, this was identified as further complicating assessment and management issues as the health care professional was unable to compare the patient’s current presentation with previous episodes or review previous health care plans.

Participants from the carers focus group expressed concerns about being excluded from discussions around decision-making pathways and reported that patients should be given the opportunity to have health care delivered in their home as opposed to attending surgery appointments as this was often difficult and for some patients, undesirable. Concerns were also raised about the varied levels of expertise of the primary health care providers, and it was argued that mandatory education and training in mental health for doctors would improve the patient experience and their health outcomes.

This study highlighted the need for improved and ongoing education and training for primary health care workers in providing care to patients with a mental illness as well as better access to specialist mental health services. The authors did concede that the small sample size may not be representative of the broader clinical community, however it was acknowledged that many of the issues reported were likely to be relevant and experienced widely. The authors suggested that further research into the

needs of primary health care professionals was justified if they are to be able to effectively assess and manage patients with mental illness (Russell & Potter, 2002).

Comparable results have also been reported across other international primary health disciplines, with a study undertaken in Nepal finding mental health education and training for primary health care providers was given a low priority in the medical education curriculum (Acharya et al., 2016). Low and middle-income countries (LAMICs) already experience a large gap in the availability of mental health services. In the Nepalese context, with the majority of these services located in Kathmandu despite more than 80% of the population living in rural regions, the importance of providing appropriate mental health education and training to health care providers cannot be understated. In their study, Acharya and colleagues used focus groups to interview primary health care providers working in Nepal, about their mental health preparedness to assist patients with a mental illness. All participants had completed undergraduate training in health including auxiliary health workers (15-18 months), health assistants (36 months) and Bachelor of Medicine, Bachelor of Surgery physicians with 5 years undergraduate training. All participants had also completed time in clinical rotations as part of their studies. The participants reported that “mental health was the most neglected topic in their studies” and that gaining clinical experiences in psychiatric wards was also negligible. Overall, mental health education was given a weighting of only 5-10 points out of a total 300 points in the internal medicine curriculum and as a result, the participants reported that they allocated very little time to studying the mental health content. On a positive note however, the participants found their mental health education had changed their perceptions of patients with a severe mental illness such as severe psychosis. Prior to their studies, the participants believed severe psychotic episodes were linked to evil spirits and the patients were “crazy” and would never recover, however after completing their

undergraduate training, the participants realised that these patients were unwell and with appropriate treatment, their health condition could improve (Acharya et al., 2016).

2.4.2 Education and training in mental health care: emergency medicine perspectives

As previously reported, the deinstitutionalisation of mental health services in Australia led to a significant increase in the number of patients with a mental illness reporting to an emergency department (ED) for assistance. It was also reported, that despite an increase in the number of presentations to the ED, patients with a mental illness were often triaged at a lower priority compared with patients with physical illnesses, as triage nurses reported a lack of "expertise and confidence" in identifying the urgency of mental illness presentations (Clarke, Brown, Hughes, & Motluk, 2006; Smart, Pollard, & Walpole, 1999).

In their study, Smart and colleagues reported patients with a mental illness problem presenting to the Royal Hobart Hospital (RHH), Department of Emergency Medicine (DEM) for care, were often required to sit for prolonged periods of time in waiting rooms that were often noisy and overcrowded. This resulted from criteria used in the National Triage Scale (NTS) primarily reflected the urgency of physical illness paradigms only, whilst these measures were not transferrable to mental illness presentations. A review in mental health services at the RHH at the time, reported an urgent need for education and training for DEM nurses in mental illness assessment and management, including triage for this patient group. Along with the development of an educational framework for nurses, the study also aimed to develop a Mental Health Triage Scale (MHTS), consistent with the NTS, as triage nurses were already familiar with this. One of the authors of the study was assigned as the project officer to develop the education and training program for nurses as well as liaise with key stakeholders to develop the MHTS. Education and training for nurses followed the development of the MHTS which

consisted of developing assessment and reporting skills for patients presenting with anxiety, depression, suicidal ideation, psychosis and substance abuse. The triage staff reported the education and training provided the necessary skills to assess patients with mental illness which resulted in significant decreases in patient waiting times. The authors also found that education and training improved professionalism with the nursing staff having a better understanding of the patient's and their families/carers needs (Smart et al., 1999).

Clarke and colleagues (2006) undertook a comparable study in Canada which identified the 'physical symptoms' assigned to the Canadian Triage and Acuity Scale (CTAS), often resulted in patients with mental illness presentations classified as 'non-urgent'. This was occurring because nurses found mental illness presentations often difficult to describe and see resulting in difficulty applying to one of the five steps of the CTAS which were:

- "Level 1 - resuscitation (threats to life and limb);
- Level 2 - emergent (a potential threat to life and limb);
- Level 3 - urgent (conditions that could progress to a serious problem);
- Level 4 - less urgent (conditions that would benefit from intervention within 1-2 hours);
- Level 5 - non-urgent".

It is likely that patients with mental illness may be required to sit in the waiting room for periods longer than 2 hours given their chief complaint does not require resuscitative efforts or is not seen to be a potential 'threat to life and limb'. With the aim of improving the experience of patients presenting to the emergency department (ED) with mental illness, the authors undertook a study to improve the assessment skills of nurses when triaging patients with a mental illness presentation, as well as stream lining the transit of mental illness patients through the ED. Baseline data were collected before and

after an educational intervention was undertaken. The following variables were included in the baseline data:

- "number of patients designated as mental health triaged into the various CTAS categories;
- average wait times at critical points during the patient's trajectory through the ED which include
    - time from triage to the Psychiatric Emergency Nurse's assessment (PEN);
    - time from PEN's assessment to review by ED physician;
    - time from review to completion of consultant's examination;
    - total time from registration to discharge for patients with a mental health consultation;
    - total time from registration to discharge for patients without a mental health consultation;
    - numbers of aggressive incidents related to mental health patients;
    - triage staff comfort with mental health patients and assessment of mental health issues"(Clarke et al., 2006).

A three-hour educational session was undertaken by ten triage nurses (35% of eligible triage staff) working in the ED in a large Canadian teaching hospital. The content of the session included information about distinct types of mental illnesses as well as how to assess and manage patients with mental illness presentations. Results were varied with patients with a mental illness triaged at less urgent levels compared with patients with a physical illness both pre and post intervention. A noticeable change however, was post intervention where patients with a mental illness who required hospitalisation were triaged at Level 2 (emergent), compared with pre-intervention where fifty percent were triaged at Level 5 (non-urgent). The average length of stay in the ED for patients with mental illness presentations also decreased post intervention. The nurses also viewed ongoing education and training in managing patients with a mental illness as an asset. Despite a low level of participation, the study found that education and training in providing care to patients with a mental illness improved the patients ED experience and arguably, the patient's recovery (Clarke et al., 2006).

In their investigation into the volume of psychiatric curricula content included in emergency medicine (EM) and paediatric emergency medicine (PEM) programs across the United States and Canada, Santucci and colleagues (2003), reported mental health education and training was given a low priority compared with other medical specialties. A brief survey was mailed out to the directors of a total of 164 EM and PEM programs and with a response rate of 76% (n=87), the study found, that despite extensive increases in the number of adult and paediatric patients reporting to emergency departments for psychiatric problems, very little emphasis was placed on educating physicians about the assessment and management of these patients. It was reported that recently trained EM and PEM specialists were "unlikely to have received formal education" relating to the needs of children with a mental illness. This result was further reinforced by the finding that the directors of the programs believed 'on the job training' for EM and PEM residents provided the necessary means to develop assessment and management skills for patients presenting with acute mental illness emergencies, despite this not being delivered by experts in psychiatric medicine. The authors did find however, that education and training of psychiatry residents in emergency psychiatric care had expanded and recommended embedding psychiatric training in the EM and PEM curriculum (Santucci et al., 2003).

2.4.3 Education and training in mental health care: nursing perspectives

Research exploring perceptions of mental health education and training from the nursing perspective has found that the introduction of the Nurses Act in 1993, resulted in a move away from specialised undergraduate mental health education in Victoria, to a more comprehensive generalist nurse model. Effectively, this saw the end of specialisation in undergraduate mental health nursing in higher education in Australia, however there was still an expectation that the generalist trained nurse would possess

the required knowledge and skills to care for patients in mental health facilities (Happell, 1998, 2010).

Since 1994, several inquiries and reviews into mental health education for nurses have been undertaken. A number of recommendations had been made based on these investigations, however Happell (2010), reported that undergraduate nurse education continued to place minimal focus on mental health education and therefore graduated nurses were ill-equipped to provide evidence-based care to meet the needs of patients with mental illness. Students also reported low levels of confidence in their ability to provide care for patients with a mental illness due to a lack of education and training (Happell, 2010).

Despite renewed support for a return to undergraduate mental health nursing in higher education, a study undertaken in Queensland identified a number of challenges that potentially could prevent the re-establishment of undergraduate mental health nurse education. Happell and McAllister (2015), argued that whilst the aim of undergraduate nurse education was to prepare nurses to perform at a foundational practice level, providing undergraduates with the opportunity to specialise in mental health nursing during the undergraduate period may improve mental health literacy and the appeal of mental health care for nurses. It was argued that improving mental health literacy would also result in a more skilled workforce, ultimately improving patient experiences and overall patient outcomes (Happell & McAllister, 2015).

In their qualitative exploratory study, the authors interviewed academic staff (eight Heads of School and one Associate Dean of Learning and Teaching) from nine Queensland universities about the perceived merit or detriment to introducing an undergraduate nursing degree majoring in mental health care. Five main themes emerged from the study, interestingly one of the challenges identified by several participants was the difficulty in recruiting skilled mental health nursing staff into

academic positions. A number of additional themes emerged which included funding requirements, industry support and the availability of quality clinical placement experiences, as well as concerns raised from other academics about the importance attributed to mental illness over other streams such as paediatrics and other specialties (Happell & McAllister, 2015). In regard to the nurse's perception of the education and training in mental health care they have received, Happell & McAllister's study was quite unique as it provided another lens to mental health education for nurses, with the focus being the education providers perceptions of mental health education for nurses. Challenges around funding and resources for programs are not unexpected, however, the notion that there is a scarcity of skilled mental health nursing academics further adds to the complexity of developing a skilled workforce of mental health nurses.

2.4.4 Education and training in mental health care: pharmacists' perspectives

A number of studies have found that pharmacists report a lack of confidence in communicating effectively with patients with a mental illness (Phokeo et al., 2004; Rutter, Taylor, & Branford, 2013). It could be argued that the acquisition and provision of information designed to improve patients health outcomes are significantly dependent on effective communication styles and if this is missing, the potential for misdiagnosis or the provision of care that could be harmful to the patient, is possible. Providing information to patients about their medications is a core role for pharmacists, however Phokeo and colleagues (2004), found pharmacists were more confident and comfortable providing medication information and follow up to patients with cardiovascular disease compared with patients with mental illness, which was linked to the deficit of education and training they received in mental health care (Phokeo et al., 2004). This study will be explored further in the stigma section as the authors also reported an inequity of care provided to patients with a mental illness in comparison to cardiac care patients (Phokeo et al., 2004).

Similar findings were described by Rutter and colleagues (2013) who found that pharmacy graduates reported an “unpreparedness” to talk to patients with a mental illness, further highlighting the need for improved education and training in communication skills. In their study, the authors employed two separate sources for data collection:

1. semi-structured telephone interviews were undertaken with pharmacy educators across 19 United Kingdom (UK) pharmacy schools;
2. an electronic survey of pharmacy graduates (one-year pre-registration and 5 years post-registration) was conducted.

Under the headings of ‘breadth and depth of teaching’, ‘mode of delivery’ and ‘clinical teaching philosophy’, results from the interviews found the curriculum content had a significant medication focus with little emphasis on the ‘social aspects’ of mental health care. Of the 19 schools interviewed, only six provided students with experiential learning opportunities in mental health care. Whilst the learning was essentially observational with little direct contact with a patient, it did provide students with an opportunity to contextualise their knowledge. The results from the surveys supported the lack of variety in course content with participants describing a lack of opportunity to translate theory into practice. Reduced confidence in communicating with patients with a mental illness was also identified and highlighted the need for enhanced education and training in non-technical skills such as communication. The authors also linked low confidence levels in communication with a lack of experiential learning opportunities. It was further argued that the perceived lack of willingness for schools to explore options for clinical placements in mental health facilities could be “grounded in institutional stigmatisation” (Rutter et al., 2013). This is an interesting concept as studies have shown that pharmacists hold stigmatising attitudes towards patients with mental illness which has additionally been linked to decreased education and training opportunities in

mental health care (Murphy et al., 2016; Phokeo et al., 2004), a concept that will be explored further in this thesis.

2.4.5 Education and training in mental health care: medical practitioners' perspectives

General Practitioners (GPs) play a pivotal role in the assessment and management of patients with mental illness presentations. It has been reported that up to 30% of GP consults are for mental illness related problems (Bambling et al., 2007; Fleury, Bamvita, Farand, & Tremblay, 2008). Studies however, have reported a lack of education and training in managing patients with a mental illness significantly impacts the care GPs provide to patients with a mental illness, along with the overall doctor/patient relationship. Education and training in managing patients with a mental illness was also linked to the level of interest of GPs in treating patients with mental illness (Hodgins, Judd, Davis, & Fahey, 2007; Richards, Ryan, McCabe, Groom, & Hickie, 2004). In their study, Hodgins and colleagues (2007), found that GPs often had difficulty in diagnosing common mental illnesses such as anxiety and depression. This occurred despite evidence-based guidelines in the treatment of anxiety and depression being available to GPs. The authors identified barriers to GPs providing effective care to patients with a mental illness which included the notion that evidence-based practice was seen to be too difficult and that "good doctors did not need extra training" to deliver patient care. The authors also reported an association between GPs being interested in treating patients with a mental illness and an increased likelihood of them attending training sessions further enhancing their knowledge and skill level in patient assessment and management (Hodgins et al., 2007). This suggests that the care delivered to patients with a mental illness is dependent on the GP's interest in mental health care, warranting further investigation into factors that foster interest in this area.

Studies have found that patients with depression, often receive suboptimal care from GPs as their illness is frequently not recognised. Richards and colleagues (2004) reported a lack of knowledge and skills in mental health assessment influenced the under-recognition of the signs and symptoms of depression and therefore patient treatment. Under the endorsement of the Australian Divisions of General Practice (ADGP), the authors undertook a study to investigate what impact prior education and training in managing patients with a mental illness had on the GP's ability to manage patients with depression. Surveys were sent out to 608 GPs working across rural and urban settings in Australia. Data collection included demographic data; years working as a GP, information regarding completion of post graduate qualifications as well as if the participants had undertaken any mental health training in the past five years. Data about the GP's clinical experience with depressed patients over the previous six months including treatments and therapies used in the management of the patient was also collected. Attitudes to depression, confidence in assessing and managing patients and GPs' perceived barriers to providing care to this patient group were also explored. With a response rate of 69% (n=420), the authors found that education and training in mental health care had a positive effect on GPs' attitudes towards patients with depression. General practitioners also reported increased levels of confidence in their ability to diagnose and treat depression in patients. Of interest, was the finding that GPs with previous mental health training often used non -pharmacological treatments such as cognitive behavioural therapy (CBT) for patients with depression. The study did report however, that only GPs with post graduate qualifications felt confident in diagnosing and treating suicidal patients. Female GPs were more likely to treat patients with depression, a finding that has been reported previously (Hickie, Davenport, Naismith, Scott, & Secretariat, 2001), with male GPs believing patients with depression should not consult their GP as GPs were limited to the care they could provide the patient. It was reported however, that the study sample contained a higher

number of female GPs compared with male GPs which may account for the discrepancy between female and male GPs, suggesting that the results may not be representative of the wider community of female and male GPs (Richards et al., 2004).

2.4.6 Education and training in mental health care: police perspectives

Providing care to patients with mental illness is predominately seen as the responsibility of health care professionals. To a degree this is correct, however police are often presented with the challenge of assisting people with mental illness and often in crisis situations. As reported previously, there was a significant increase in presentations of patients with mental illness to emergency departments and paramedics post the decentralisation of mental health services in Australia (Hundertmark, 2002; Shaban, 2004). This too has resulted in an increased number of police encounters with people with mental illness, with reports that 20%-30% of police cases are to attend to people with mental illness problems (Coleman & Cotton, 2010; Godfredson, Thomas, Ogloff, & Luebbers, 2011). The importance of providing police with the knowledge and skills to assist this patient group cannot be underestimated, with a 2005 investigation into police shootings in Victoria, finding three out of six people fatally shot by police had a mental illness (Ogloff et al., 2013). In addition to this and as reported by the Fairfax media, Superintendent David Donohue from NSW police, stated that approximately 90% of NSW police officers had not undertaken formal education and training in managing patients with a mental illness despite responding to 38,534 people with a mental illness in 2012. The superintendent also stated, "unfortunately there are incidents of police contact with mentally ill people with fatal outcomes..... someone who is hostile to police is not necessarily a danger to police but it's about making sure they are safe" (Partridge, 2013).

Godfredson and colleagues (2011), undertook a study exploring the perceptions of Victorian police of their interactions with people with mental illness. In Victoria, all

operational police officers are required to undertake Operational Safety and Tactics Training (OSTT) bi-annually. From January–June 2008, all officers attending OSTT were invited to participate in a survey exploring frequency of police interactions with people with mental illness, police identification of mental illness, challenges perceived by police to assist people with mental illness and outcomes of police encounters with this population group. With a response rate of 92.7% (n= 3,534), the participants reported frequent contact with people with mental illness, with over one third reporting contacts between three and ten times per week. It was reported that participants used observable signs such as speech/speech content, appearance, body language and displays of aggressive behaviour to determine whether the person they were interacting with had a mental illness. The authors however reported that whilst identifying signs and symptoms of mental illness was important, knowing how to approach a person in distress, provide support and de-escalate a potentially volatile situation were of utmost importance. Arguably, the significance of this would be to improve the outcome for the person engaged with police and potentially reduce the number of fatalities due to police shootings. The participants felt unsupported by the health system and mental health professionals claiming, “hospitals haven’t got the resources to assess mentally ill patients” and frustration at having to “baby-sit mentally ill people in hospital waiting rooms” (Godfredson et al., 2011). Comparable with previous findings (Rutter et al., 2013), participants of this study also reported a lack of confidence in communicating with people with mental illness as a barrier to providing support. Whilst it was reported that the participants valued the knowledge and skills gained from ‘on the job training’ more than in house training delivered by Victoria police, the authors did suggest that education and training must be delivered in a way to meet all learning preferences including didactic and experiential modalities (Godfredson et al., 2011).

2.5 Increasing mental health literacy through education: effects on knowledge, skills, confidence and stigma

The term ‘mental health literacy was first coined by Jorm et al (1997) and is defined as “knowledge and beliefs about mental disorders which aid their recognition, management or prevention”(Jorm et al., 1997). Given this, the clinical implications for increasing mental health literacy levels in frontline health and emergency service personnel who engage with mentally ill patients, cannot be understated. Studies have reported mental health education and training for health care students, health professionals, police and the general public increases mental health literacy levels.

De Silva et al (2015), evaluated the effectiveness of a Suicide Awareness and Intervention Program (SAIP) delivered to University of Tasmania (UTAS) students enrolled in Paramedicine, Medicine and Pharmacy undergraduate degrees. The SAIP was embedded in the first-year curriculum and all participants were invited to complete a pre and post SAIP survey which included questions regarding participants’ level of comfort in talking about suicide, participants’ confidence in providing appropriate assistance to a person at risk and participants’ knowledge of risk factors for suicide as well as statistics around suicide. Six months after the SAIP, a follow up email was sent to the participants seeking feedback regarding their use of knowledge and skills developed in the SAIP in their personal, clinical and professional settings. Ten percent of participants reported that they had used the skills to support themselves and others, including patients on clinical placement. Student counselling services also reported a steady increase in the number of medical students using their services post SAIP. Overall, the authors reported the SAIP was extremely successful in preparing the students for clinical practice with agreed or strongly agreed response rates for all disciplines above 91%. The participants also reported significantly higher levels of comfort in talking about suicide and talking to people at risk as well as increased

confidence in assisting a person at risk (De Silva, Bowerman, & Zimitat, 2015) (Appendix 7).

Emond et al (2015), reported education and training in mental health care for paramedic students positively altered perceptions of mental illness. The authors invited paramedic students enrolled in a mental health practice subject to complete pre and post surveys regarding general knowledge about mental illness and the paramedic management of mental illness, as well as common myths pertaining to mental illness.

Overall the results showed positive changes regarding patient recovery and comfortability in managing a patient with mental illness. Of interest however, as reported by 8% of respondents, there was a perception that people with psychosis were dangerous, people who were agitated and required sedation should be transported by police and talking about suicide encourages people to attempt suicide. These findings were reported after completion of the mental health subject. Prior to undertaking the subject, no respondents had agreed with these statements. The authors did however acknowledge that their study was limited with a low response rate of 12 out of 25 students completing both pre and post surveys (Emond, Furness, & Deacon-Crouch, 2015).

To determine the effectiveness of a mental health education program, Usher et al (2014) surveyed nurses and community health care workers from the Pacific region before and after attending a four-week program. Eighteen participants (100%) were recruited into the education program which adopted the general principles of the World Health Organization (WHO) Mental Health Gap Action Program which included communication with consumers and their support networks as well as patient assessment, management and monitoring.

All of the eighteen participants had a personal experience with a person with mental illness, whilst fourteen participants had worked in mental health settings as a mental

health nurse. Further to this, eight participants had specific mental health as well as nursing or health care qualifications.

The program utilised a number of pedagogical approaches such as workshops where participants had the opportunity to enhance their knowledge about mental illness and treatment options as well as mental health promotion, evidence-based practice and self-reflection. The participants had the opportunity to integrate their theory and clinical practice through simulation and onsite visits to mental health facilities.

The pre-program survey asked demographic questions as well as questions exploring participants' knowledge, skills and attitudes regarding mental health care. The same exploratory questions were surveyed post-program.

Overall, the participants reported a significant increase in their confidence in assessment and management of patients with mental illness. Positive changes in knowledge, skills and attitudes were important. Given that effective communication is the critical component to undertaking a patient assessment which in turn informs patient management and ultimately, patient outcomes, the findings that the participants reported a large increase in confidence in communicating with people experiencing mental illness or under the effects of alcohol was significant. Whilst the authors did acknowledge that the study was limited because of a small sample size, this research does extend findings previously reported that mental health education programs are effective in increasing mental health literacy levels (Usher et al., 2014)

Booth et al (2017) investigated the effectiveness of mental health training programs for police and other non-mental health trained professionals, aimed at increasing mental health literacy, improving management of this patient group and changing attitudes. The review targeted police, however preliminary searches suggested data may be limited, with the authors broadening their search strategies to include programs delivered to other non-mental health trained professionals who are likely to come into

contact with people with mental illness such as paramedics and teachers. Nineteen studies were included in the systematic review with the authors reporting an increase in knowledge and skill transference when a variety of teaching modalities were used. The authors also highlighted the importance of facilitators of the training being expert in their field was essential for training to be effective (Booth et al., 2017).

In response to a previous study which found that in general, the public have poor mental health literacy levels which impacts recognition and help seeking (Jorm et al., 1997), a further study was undertaken by Jorm et al (2004), exploring the effectiveness of mental health education for the public living in rural Australia. This cluster randomised trial evaluated the effectiveness of Mental Health First Aid (MHFA) training in increasing the publics mental health literacy levels and confidence in providing mental health first aid care. The authors identified that participants in rural Australia were purposively targeted as often accessing health care in this region is more challenging compared with an urban setting.

The course and study was advertised through the media with voluntary participants being randomised into one of two groups. In group one, participants completed a pre-training telephone survey exploring their personal experiences with mental illness, their confidence in assisting a person with mental illness, the diagnosis of a person presenting with either depression or schizophrenia through a vignette as well as their knowledge of services available to assist people developing mental illness or displaying signs and symptoms of mental illness. The participants in group one were then enrolled in the MHFA program in which they completed nine hours (three hours per week for three weeks). The participants then completed a post-training telephone survey exploring the same questions that were asked before undertaking the MHFA training. In group 2, the participants also completed the pre and post training surveys at the same time as the group one participants, however they did not receive the MHFA

training. Group 2 participants were provided with MHFA training after data collection and analysis was completed. The authors reported significant changes in knowledge, skills and attitudes of mental illness between the participants of group one and group two. The participants in group one reported increased levels of confidence in assisting people with mental illness as well as an increased ability in recognising signs and symptoms of depression and schizophrenia. An additional notable outcome was the reduction in social distance towards the people portrayed in the vignettes. The authors argued that potentially MHFA training could lead to "over-diagnosis of life problems as mental disorders", however the findings did not report changes that were deemed significant or concerning (Jorm, Kitchener, O'Kearney, & Dear, 2004).

To further investigate the impact mental health literacy (MHL) has on confidence and attitudes, O'Reilly and colleagues (2010) explored the MHL of pharmacists working in New South Wales. A total of 19.5% (n=391) of invitees were recruited for the study. Participant demographic data reported the majority (60%) were female with a median age of 48 years. The average years of registration as a pharmacist for the participants was 26 years. Furthermore, 20% of the participants reported having personally experienced mental illness, with an additional 54% having personal experience with a member of their immediate family experiencing mental illness (O'Reilly, Bell, & Chen, 2010). The study used the same survey instrument previously developed by Jorm and colleagues (Jorm et al., 1997) which included vignettes about people with depression and schizophrenia. The authors reported the MHL of pharmacists was high with 92% of participants correctly identifying presentations of depression and 79% correctly identifying presentations of schizophrenia or psychosis. However, despite these high levels of MHL, it was reported that pharmacists have negative attitudes towards patients with mental illness, believing discrimination towards patients with mental illness is more likely than patients with somatic illnesses and without professional help, the

long-term health outcomes for patients with mental illness was seen to be poor which is in contrast to findings from previous studies (O'Reilly et al., 2010).

Overall, effective education and training allows for the transference of knowledge and skills from training into practice. To achieve this however, the content must be relevant, it needs to fulfil the expectations of the participants as well as provide an opportunity to practice new skills and give and receive feedback (MacRae & Skinner, 2011).

As with knowledge and skills transference, studies have also found different teaching approaches are effective in decreasing stigma through increased mental health literacy. Knaak & Patten (2016), reported a sense of helplessness often contributes to anxiety and avoidance and in the instance of health care professionals assistance of patients with mental illnesses, this could be translated as displays of stigma towards the patient. The authors undertook a study to investigate the best approaches to designing and delivering effective anti-stigma education programs. Educational interventions which included participant contact with a person living with a mental illness who was willing to share their experiences, have been found to be effectual in decreasing stigma, however the authors claim that educational interventions often lack an evidence-informed theoretical framework and whilst previous "program evaluation results were generally positive, individual study effects were not always statistically significant" (Knaak & Patten, 2016). The authors reviewed 18 anti-stigma programs across Canada and through a process of in-depth interviews with program leads, direct observation of program delivery and review of program participant feedback, it was reported that the starting point for any anti-stigma initiative directed towards health care professionals was 'targeting the roots of health care provider stigma' and to achieve this the following four-stage process was identified:

1. Set up for success

Central to effective program planning, the authors stated that involving consumers of mental health care and their families was important when designing program objectives. Support from leadership in practicing health care settings was also crucial as a lack of leadership support was seen to be a deterrent in program success. The authors stated that participant recruitment was often a challenge due to competing demands on health care providers and to maximise attendance, stated that incentives such as educational credits should be offered, whilst mandating attendance should also be considered.

2. Build the program using key ingredients

Key to success of the program is a personal testimony of a person living with mental illness, sharing their stories and experiences of accessing health care. Programs should put emphasis on patient recovery and the importance of the role that health care workers play in patient recovery. Developing confidence and competence in providing mental health care was seen to be an essential program objective and to do this, the authors stressed the importance of teaching relevant skills, dispelling myths, improving language use and encouraging self-reflection were critical.

3. Make the connection

Effective program delivery was the key tenet to ‘making the connection’ and to achieve this the authors highlighted the importance of developing interactive and engaging programs whilst avoiding the ‘you must do this’ message as health care providers were seen to be resistant to anti-stigma initiatives if they feel they are being targeted or told what to do.

4. Work toward culture change

Effective anti-stigma initiatives for health care professionals were seen to be a reflection of culture change, however the authors claimed that change is unlikely to occur due to a one-off initiative and stressed the importance of ongoing professional development sessions for participants, embedding anti-stigma initiatives within staff orientation programs and identifying and managing structural stigma at a systems level (Knaak & Patten, 2016).

In their exploration of the outcomes of an educational intervention designed to decrease stigmatisation of patients with a mental illness from undergraduate nurses, Bingham & O'Brien (2017) recruited a sample of year one undergraduate nurses enrolled at a nursing school in New Zealand. The study was seen to be unique as the intervention was conducted whilst the participants were undertaking a clinical placement in a mental health facility. Forty-five undergraduate nurses participated in the study exploring attitudes towards patients presenting with a spectrum of mental illness diagnoses. The participants were asked to complete the Attribution Questionnaire (AQ 27) tool pre and post a guided clinical placement. The vignette-based tool has been used extensively to evaluate anti-stigma programs which explores participants' perceptions of a person with schizophrenia.

The participants undertook a guided clinical placement comprising a supervised four-hour clinical experience providing interactions with patients in a mental health facility over a three-week period. This learning opportunity was further supported by a specialist mental health lecturer who coordinated experiential learning opportunities for the participants. The findings of this study reported positive differences in participants' approaches to fear and avoiding patients with mental illness as well as the perception of 'dangerousness' in this patient group, however there was no change in participants'

perceptions of ‘blame’ or ‘coercion’. The authors conceded that additional studies should be undertaken to investigate this further (Bingham & O'Brien, 2017).

Overall, the findings of developing therapeutic communication skills in first year undergraduate nurses was the focus of this research as this was seen to influence the development of beneficial relationships between the nurse participants and their patients with a mental illness. Developing these therapeutic relationships was also considered instrumental in influencing the graduate nurse’s decision to work in the mental health care industry once registered (Bingham & O'Brien, 2017).

Ahuja et al (2017), investigated a link between increased mental health literacy levels through education and contact and a reduction in stigma towards people with mental illness. The study was conducted in Delhi and the participants were college students from a number of colleges across the Delhi region. In total, fifty students (27 females, 23 males) participated in the study which explored their attitudes, knowledge and beliefs about mental illness and people with mental illness. The participants were required to complete a pre-intervention and post-intervention survey. The approaches adopted for the intervention included a theatrical experience, a didactic education session and contact with a person living with mental illness. In the first instance, dance was used to address myths around mental illness relating to risk factors, violence and recovery. The didactic session provided information about statistics, causes and treatments for mental illness, whilst the presentation from a person living with mental illness provided a forum for the participants to engage with a person living with mental illness. Post intervention, the study found an increase in positive attitudes towards people with mental illness. An example was that one participant’s description of a person with mental illness pre-intervention was “restlessness, depression, unable to perform day to day activities” whilst post-intervention, the participant’s description had changed to “same as us” and “creative”. The authors did provide similar examples

reflecting positive changes in the participants attitudes post- intervention. A further follow up post-intervention survey was conducted one week after the intervention with reports that attitudes towards people with mental illness remained positive (Ahuja, Dhillon, Juneja, & Sharma, 2017).

The authors did acknowledge that further follow up with the participants was warranted to determine if in the long term, attitudes remained positive as this study only reported short term effects. It was also identified that the findings supported changes to attitudes, however further research would need to be undertaken to determine if these attitudinal changes resulted in positive behavioural changes as well (Ahuja et al., 2017).

To further explore the impact mental health education and training has on decreasing stigma towards people with mental illness, Beaulieu et al (2017), conducted a double-blind, randomised control trial investigating the impact a contact-based education approach had on decreasing stigma and improving confidence levels in General Practitioners when assisting patients with mental illness presentations. The recruitment process included the randomisation of General Practitioner (GP) practices within a 2-hour radius of the Halifax Regional Municipality in Nova Scotia. The decision to randomise GP practices as opposed to individual physicians was adopted to avoid the potential change in the physician's clinical practice which could affect patient care delivery. A validated stigma tool was used to evaluate the effectiveness of the educational intervention in decreasing stigma towards patients with mental illness presentations. The contact-based intervention program consisted of social contact with people living with mental illness who shared their stories of experiences and recovery and support resources in the form of self-managed workbooks providing information around diagnosis and assessment for depression and anxiety. Interactive workshops were dispersed throughout the intervention period which allowed for the participants to

practice what they had learnt. The intervention lasted 15 weeks, with the control group having the opportunity to receive the same training once the study was completed. The interventional program was seen to reduce stigma towards patients with mental illness in primary care providers. As reported by the authors, these findings have been reported previously, however the evidence resulted from non-randomised trials which could raise questions regarding validity of the findings. In contrast, Beaulieu et al (2017) have improved reliability in their study through their randomised control approach (Beaulieu et al., 2017).

2.6 Clinical decision-making processes

Patient outcomes are dependent on the initial assessment and ongoing management and this can be a complex process depending on factors such as the patient's presenting circumstances, knowledge and skills of the attending crew, environmental factors and available additional resources. Given that paramedics, emergency medicine staff and police are often on the frontline in the assessment and manage of patients with mental illness, it is important to explore how this initial phase in the patient's overall care is undertaken.

2.6.1 Paramedic perspective

The first point of call for many people requiring assistance with a mental illness presentation is to call their local ambulance service. The initial constructs of presentation and assessment of the patient are potentially expounded from information collected from the ambulance communication centre. The following is a vignette based on anecdotal sources demonstrating the call taking and dispatching processes involved when a call to ambulance for assistance is made:

> *"Ambulance service, what is the nature of your medical emergency"?*
> "A man is running around the supermarket carpark, he looks frightened and is yelling at parked cars"

"Is he conscious? Is he breathing? Is he bleeding? Is he complaining of chest pain or a headache?"

"He is yelling and running around so he must be conscious and breathing. I don't think that he has been run over and I can't see any blood although he does look really scared. I haven't talked to him, so I don't know if he has any chest pain or a headache, but I am really worried that he will get knocked down by a car."

Oh, ok then, keep an eye on him and an ambulance will be with you soon. If anything changes in the meantime, please call us back."

This vignette demonstrates the sequential processes involved within ambulance communication centres where in coming information is collected and using a predefined detailed script of questions, the ambulance call taker is able to determine if the patient is presenting with a life-threatening health issue or, if a less time-critical approach to providing care to the patient is reasonable.

It is not surprising that the first line of questioning is about the patient's own ability to sustain life with consciousness, breathing and heart rate a priority, however what is highlighted is the importance placed on some patient presentations and the less importance placed on others. In this scenario, it is evident that once the call taker realised this was a 'psychiatric case', the tone and urgency changed and anecdotally this does reflect current practice to some extent (Bowerman, Clifford, McMullen, & Stevens, 2013) (appendix 8). Potentially, this initial impression of 'less importance' is consciously or unconsciously transferred to the attending paramedic crew, which could bias the initial patient approach. Given this presupposition, an exploration of the decision-making processes used by paramedics in their initial assessment and management of patients with mental illness is justified.

Patient assessment and management is dependent on sound clinical reasoning skills and to do this, paramedics are reported to use a mix of theory, clinical skills as well as prior knowledge and on road experience to formulate a provisional diagnosis and develop a management plan for their patients (Bendall & Morrison, 2009; Shaban,

2004; Wyatt, 2003). Clinical decision-making has been reported to be dependent on the paramedic's ability to gather, evaluate and importantly, synthesise the information with reports that poor decision-making results from inadequate information collected (Bendall & Morrison, 2009). Communication is often challenging with patients with severe mental illness presentations as well as information gathering in an often chaotic environment (Munro & Baker, 2007), and as reported by (Shefer, Henderson, Howard, Murray, & Thornicroft, 2014), clinical decision-making in managing patients with a mental illness is further problematic given these additional confounding factors.

Wyatt (2003) reported that novice paramedics are more likely to rely heavily on ambulance service protocols and guidelines in their initial assessment and management phase, whereas this is less likely for the experienced paramedics who were reported to trust intuition gained from clinical experience and reflection (Wyatt, 2003). This is further supported by Bendall & Morrison (2009), who claim that through education, clinical experience and reflection, expert paramedics are able to respond subconsciously to common and unusual presentations in a timely and effective manner. The authors contend that decision-making is assisted by organisational guidelines and protocols, however they argue that these additions are not sufficient in providing an appropriate amount of information to support "the breadth of modern ambulance practice" (Bendall & Morrison, 2009). In addition to this, it is reported that clinical protocols and clinical practice guidelines (CPGs) for paramedics, do not employ a uniform approach in their assessment and management of patients presenting with mental illness. The spectrum of information provided stems from how to undertake a mini mental health assessment in some ambulance jurisdictions (Ambulance Tasmania, 2012), through to detaining and transporting a patient under an Emergency Examination Authority (EEA) (Queensland Government, 2017). Ambulance Tasmania made amendments to their CPGs to reflect the changes to mental health legislation

with the focus of the new guidelines pertaining to managing behavioural disturbances with a further emphasis on restraint and sedation. Furthermore, little reference was given to de-escalation techniques and additionally, no information as to how to manage patients with a mental illness who were not agitated was provided (Ambulance Tasmania, 2012).

Parsons & O'Brien (2011) found that paramedics need to undertake a number of different assessments including a primary survey to determine any life threats, a secondary survey investigating a basic physiological status, as well as mental health and suicide risk assessments. The authors proposed that the results from these combined would provide the necessary information to determine the most appropriate treatment pathway, however it was also suggested that the overall decision-making process is influenced by organisational protocols or CPGs that mandate specific clinical pathways. This raises further concerns about the information provided/not provided in the guidelines and the effect these have on patient assessment, management and outcome (Parsons & O'Brien, 2011).

2.6.2 Emergency medicine perspective

The initial assessment process in the emergency department (ED) for any patient starts with triage. Triage has been described as the initial 'sort' of patients into categories of critical, time critical, urgent and non-urgent care, to ensure that all patients are seen in a timely and appropriate manner depending on their health needs (Curtis & Ramsden, 2016). This process has been criticised in regard to patients presenting with acute mental health in the ED, with reports that the National Triage Scale (NTS) did not support patients with mental illness as the descriptors such as resuscitation and emergency used within the five triage categories referred more to physical rather than mental illness presentations (Broadbent, Jarman, & Berk, 2004; Smart et al., 1999). In response to this imbalanced approach to assessment, the revised Australasian Triage

Scale (ATS) which is used widely throughout Australia and New Zealand was adopted in 2000, however it too failed to consider the privations of patients with a mental illness. This often resulted in 'down triaging', with patients being subjected to long wait times and negative experiences and reports that patients with a mental illness were commonly triaged lower, despite their actual presentation and health needs (Broadbent et al., 2004).

Gerdtz et al (2012) undertook a study investigating factors in addition to the biased classification of the ATS, that influence the accuracy of triage of patients with a mental illness in the emergency department (ED) (Gerdtz, Weiland, Jelinek, Mackinlay, & Hill, 2012). A sample of 36 Australian ED staff, including 16 nurses and 20 doctors, were recruited for the qualitative interview study with four main themes identified:

1. Environmental factors

The busy ED was reported by nurses and doctors to negatively impact the triage process for patients with a mental illness presentation. A lack of privacy to obtain an accurate history, time constraints and a described 'awkwardness' in asking questions about suicidal ideation in front of others resulted in patients with mental illness presentations being triaged at a lower level. This was further hampered by the lack of visual cues often seen in patients with physical health presentations, for example the patient is standing, talking and stating that they feel unwell however they are not clutching their chest as may happen with cardiac problems and there are no visual signs of bleeding which may require urgent attention.

2. Resources supporting decision-making

The ATS was seen to support an urgent classification for patients with a mental illness presenting with acute behavioural disturbances, however it was reported by the sample of doctors that the remainder of these patients were always triaged at the lower level,

suggesting that the ATS portrayed a binary approach when categorising patients with a mental illness. The majority of doctor participants also recognised the difficulties faced by the ED nurses when triaging patients and the deficit of resources available to assist with decision-making. This was echoed by the sample of nurses who reported the ATS alone did not provide adequate support in the decision-making process for patients with a mental illness and referred to the Emergency Triage Education Kit as a useful training tool.

3. Staff factors

Knowledge of mental illnesses as well as experience working with patients with a mental illness were seen to be crucial influencers in the accuracy of triage decision-making. It was further reported that stigma towards patients with a mental illness negatively impacted triage decision-making in particular with patients who frequented the ED often.

4. Patient factors

This was an interesting theme as the mode in which patients arrived at hospital was reported to influence triage accuracy, in particular patients who arrived by police escort were viewed by the nurse participants as a strong indicator of acuity and often resulted in patients categorised at a higher level. This was in contrast however to the doctor participants, who placed less emphasis on the link between police and acute behavioural disturbances. It was acknowledged however, that police presence was seen to bias triage decision-making. Overall, the authors argued that triaging patients accurately using the ATS remained problematic and with the additional influencers reported in the study further compromising the triage process, additional research into improving the decision-making processes for patients with mental illness presentations in the ED was warranted.

2.6.3 Police perspective

Along with paramedics, police are often the first point of contact for patients with mental illness and also report an increase in calls for assistance from this patient group (Martínez, 2010; Sellers, Sullivan, Veysey, & Shane, 2005).

The initial interaction between police/person may be as a result of police observations of a person displaying abnormal behaviours or from a call from family, friends or a third-party member worried for the person's welfare or their own safety concerns. Police report significant challenges when called to assist people with a mental illness presentation, as in contrast to paramedics, police officers are not trained to undertake comprehensive health assessments and when it comes to people with mental illness, this often results in arrest with the person processed and managed through the judicial system (Martínez, 2010; Sellers et al., 2005).

Sellers et al (2005) found that the decision-making processes for police when called to assist people with a mental illness presentation, are motivated by one of three different assessment pathways. In the first instance, police will try to manage the situation straight away and if it is considered the person is not at risk of harm to self or others, the decision is made that no further treatment or attention is required. The second pathway is for the person to be arrested. The third option is for police to enact their legal authority and transport the person to hospital either voluntarily or without their consent. As reported by the authors, studies have found that the preferred option is to arrest the person, as police find when they utilise the transport to hospital option, they are often required to remain for long periods of time with the person until they have been fully assessed by the medical team, which often resulted in long delays before they could return to their stations or other policing roles. Police were often frustrated by the fact that the person was often discharged from hospital without any treatment as

their behaviour had changed and at the time, they did not meet the criteria for involuntary assessment (Sellers et al., 2005).

As has been discussed, the negative impact to a person's mental health and recovery is significant when inappropriate treatment options are adopted. Given that police will preference the judicial system over medical care for patients with mental illness presentations, this has highlighted the need for a review into police policies and practices in the appropriate and effective management of people with mental illness.

The Crisis Intervention Team (CIT) model was developed in Memphis Tennessee to improve police interactions with people with mental illness. The model included specialised mental health and de-escalation training for selected police officers who would then be dispatched as front-line responders to assist persons with mental illness presentations. Through the training, CIT officers were better equipped to assist the person to access mental health care and redirect them away from the judicial system if considered appropriate given the circumstances (Compton, Bahora, Watson, & Oliva, 2008). In a review of the literature pertaining to the effect CIT has had on police and people with mental illness, Compton et al (2008) reported that overall, CIT officers have had a positive effect in reducing mental health morbidity through accurately determining the person required mental health care from an appropriate health facility, as opposed to being placed under arrest and directed towards the judicial system (Compton et al., 2008).

2.7 Stigma associated with mental illness

Improving mental health literacy levels is not the only challenge for mental health education, bridging the gap between stigma and mental illness through education and training is an undertaking for all mental health education providers and curriculum designers.

Since the early 1950's, stigma towards people with mental illness has been widely reported. As described by Rabkin (1974), Nunnally (1961) found that people who are mentally ill were regarded with "fear, distrust and dislike" by members of the general public. Cummings and Cummings (1957) reported similar findings with fear towards mental illness prevalent in a small rural community in Canada. The community strongly supported segregating people displaying 'deviant behaviours' from the general community through hospitalisation (Rabkin, 1974). Rabkin argued that general consensus was people were usually hospitalised against their will, and when returning to their community post hospital discharge, were often stigmatised against more than ex criminals when it came to job seeking, support with housing and support from friends (Rabkin, 1974).

Fast forward five decades and people with mental illness continue to be viewed as being 'different', unpredictable and violent. The media continues to portray people with severe mental illness such as schizophrenia, as violent perpetrators and more recently linked to mass shootings in the USA (McGinty, Webster, & Barry, 2013; Philo et al., 1994), which further perpetuates the negative attitudes of the general public towards patients with mental illness (Reavley, Mackinnon, Morgan, & Jorm, 2014).

Stigmatising behaviours towards people with mental illnesses however, are not isolated to groups such as the general public who may have reduced understanding of the disorder, with findings that health professionals working across a number of disciplines display stigmatising behaviours towards patients with mental illness. Given that health professionals have frequent contact with patients with mental illness, they are in a prime position to facilitate a change in attitudes and behaviours and promote a reduction in stigma. To do this however, it is imperative that health care professionals are aware of their own personal beliefs about mental illness and the devastating consequences stigma can have on patients with mental illness with regard to help

seeking and recovery (Reavley et al., 2014). This is further echoed by Sartorious (2007), who described the stigma related to mental illness as being the 'main obstacle' in help seeking behaviour and consequently impacting management and recovery for people with a mental illness (Sartorius, 2007).

2.7.1 Paramedic perspectives

Reports estimate that up to one third of patients presenting to the emergency department with a mental illness problem, arrive by ambulance. As paramedics are often the first point of contact for patients presenting with a mental illness emergency, it could be argued they are also the first group of health professionals to stigmatise patients with mental illness (Prener & Lincoln, 2015). A patient's initial experience of the health system paves the way for ongoing help seeking behaviours and if met with a negative experience, the patient may choose to refuse to access ongoing care, further compromising their recovery.

Prener & Lincoln (2015), investigated the attitudes and beliefs of emergency medical services (EMS – paramedics and emergency medical technicians) working for a private ambulance agency in the USA, towards patients presenting with mental illness. The private ambulance agency was responsible for attending calls to the emergency dispatch system 9-1-1 as well as inter facility transfers (IFT). Data was collected through observational studies and semi-structured interviews. Colloquially, the participants refer to call outs to attend patients with mental illness as "psych calls" and voiced their concerns that time spent on psychiatric cases meant ambulance crews were not available for a "real" call. "Psych calls" were also referred to as a "cab ride with police escort". Calls to patients with mental illness were seen to require less advanced clinical intervention and therefore reported to be not worthy of "real" ambulance work and not reflective of the education and training received. Stigmatisation was also seen to be a product of a failing health system with hospital

bed shortages resulting in an increase in the number of mental health IFT. This was seen as a further frustration by the participants as it further impacted their ability to attend “real cases”. Often IFT occurred during overnight hours which affected the sleep of participants on 24-hour shifts. The participants reported concerns with ITFs as there was a perception that patients with mental illness posed a greater risk of violence than other patients. There was a belief amongst the participants that they were seen more as ‘street social workers’ providing care to people with high level social needs other than EMS personnel, providing emergency care to patients. The participants did acknowledge that stigma towards patients with mental illness was prevalent. The authors reported their findings were limited by the study being conducted at a single site and stated further research into the role of EMS in mental health care was warranted (Prener & Lincoln, 2015).

Reports state that the United Kingdom (UK), has one of the highest rates of self-harm (intentional self-poisoning or self-injury) in Europe. Given that paramedics are often the first frontline health professionals to attend to patients who self-harm and reports that patients have “experienced negative and sometimes hostile” reactions from paramedics (Brophy, 2006), research into the perceptions of paramedics of patients who self-harm is justified. Rees and colleagues (2014), conducted a systematic review of published quantitative literature investigating attitudes and beliefs of paramedics and emergency care practitioners towards patients who self-harm. Eight hundred and sixty-four studies were screened for relevance, however only sixteen studies met all eligibility criteria. Of these, only one study referring to ‘ambulance staff’ was identified (Rees et al., 2014). In his study, Ghodse (1978), explored attitudes of casualty staff (emergency) and ambulance personnel towards patients who take drug overdoses. The study was conducted across 62 out of 66 casualty departments in London. Along with casualty department staff, ambulance personnel transporting the patients to casualty were also

invited to participate. Participants were surveyed on their attitudes towards three groups, all of which included one type of drug-abuse patient:

1. “Patients who take an overdose accidently in the course of drug addiction;
2. Patients who deliberately take an overdose as part of a suicide attempt;
3. Patients who overdose accidentally” (Ghodse, 1978).

A response rate of 92% (n= 1248): 54% nurses (n= 669); 17% ambulance personnel (n= 212); 15% medical staff (n=189) and 12% by other casualty staff such as porters and receptionists (n= 153) was reported. Not surprisingly, the results revealed that patients who overdose accidentally were viewed more favourably than those attempting suicide or overdosing in the course of drug addiction. Attitudes of ambulance personnel were reported to be more ‘polarised’ than that of the casualty staff with attitudes towards drug-dependent patients expressed as ‘very unfavourable’ compared with patients who accidently overdose seen as ‘very favourable’. These findings as suggested by the author, may reflect environmental factors such as homes, streets, alleyways and toilets where ambulance personnel have first contact with the patient. This is in comparison to hospital staff who engage with the patient in a waiting room or hospital cubicle. It was also suggested by the author that there is a link between health professionals stigma towards drug addicts and the provocation of violent and aggressive responses from the patient to the staff (Ghodse, 1978), which is an interesting concept.

Rees and colleagues (2014), reported the study undertaken by Ghodse was before the registration of UK paramedics in 2001, which is why the term ‘ambulance personnel’ was used as opposed to paramedic. Given the fact that at the time, no study had been conducted exploring the attitudes of paramedics towards patients who self-harm post paramedic registration, the authors stated ongoing research in this area was needed (Rees et al., 2014), which led to the following 2015 study.

Rees and colleagues (2015) conducted a systematic review of qualitative literature exploring paramedic and emergency care practitioners' perceptions about the care they provide to patients who self-harm. Given that a previous literature review identified only one study about the attitudes of paramedics towards patients who self-harm, the authors extended their search to include all studies with a paramedic focus pertaining to: paramedic or emergency care for self-harm; education for paramedics and decision-making in relation to mental health care in the out of hospital environment. A review of each citation and abstract was undertaken to ensure qualitative research not relevant to emergency staff and paramedics' perceptions of care for people who self-harm was eliminated. Seven hundred and thirty-four papers were retrieved. Of these, 12 met the inclusion criteria, however no articles pertaining specifically to paramedic perceptions about the care they provide to patients who self-harm were identified. As the original search criteria was expanded, the authors did identify studies referring to paramedic education and training for managing patients with a mental illness (Roberts & Henderson, 2009; Shaban, 2004) which have been discussed previously in this thesis, as well as studies around paramedic decision-making (Rees et al., 2015) which have also been explored.

As there is a paucity of literature investigating perceptions of stigmatising behaviour by paramedics towards patients with a mental illness, the literature review was expanded to include other health care professionals, police and health science students.

2.7.2 Health science students' perspectives

Undergraduate health science students have been reported to hold differing attitudes towards patients with a variety of health problems. In their study, Boyle et al (2010) recruited students enrolled in Emergency Health (Paramedic), Nursing, Midwifery, Occupational Therapy, Physiotherapy and Health Science degrees at Monash University, to participate in a study investigating attitudes towards patients with

intellectual disabilities, acute mental illness and substance abuse. A total of 548 students (119 paramedic,107 nursing, 52 midwifery, 92 occupational therapy,109 physiotherapy, 69 health science) participated in the survey study which found that patients with intellectual disabilities were viewed more positively by the participants across all health degrees, compared with patients from the other two groups (Boyle et al., 2010). Patients with substance use disorders were viewed less favourably compared with patients with acute mental illnesses, which supports findings from previous research (van Boekel, Brouwers, van Weeghel, & Garretsen, 2015). Midwifery students were found to hold the most negative attitudes towards patients with substance abuse, with the authors hypothesising that this may be a reflection of the affect alcohol and other drugs have on the foetus and the baby's health. It was suggested that patients with substance use disorders were viewed less favourably because their problems were seen to result from personal choices as opposed to illness or injury (Boyle et al., 2010). Students enrolled in the Emergency Health (Paramedic) degree viewed patients with acute mental illness more favourably than students from other health degrees which was an interesting result and warrants further investigation. Whilst the authors did not expand on this finding further, they did report that the data demonstrates that students from various health science disciplines will differ in their opinions towards patients with diverse medical conditions. Furthermore, the authors emphasised the extent to which these opinions can impact the student's attitudes towards the patient, which could result in inequities in health care delivery (Boyle et al., 2010). The role of education and training for health science degree students cannot be underestimated as these students are the future health professionals caring for patients with a variety of health problems including mental illness and substance use disorders.

As this study used a convenience sampling method to recruit participants, the authors acknowledged that potentially the results could have been biased by the participants who volunteered. As the study used a self-reporting questionnaire, the authors also acknowledged that the results could have been further biased with the participants responding in a way that would be viewed more favourably by others. Despite these limitations, the study has paved the way for additional research to be undertaken to investigate the factors that influence health science students' opinions of patients with intellectual disabilities, acute mental illness and substance abuse which could then be used to inform curriculum development (Boyle et al., 2010)

In a study conducted by Williams et al (2014), paramedic students were reported to have lower levels of empathy towards patients compared with students enrolled in nursing, midwifery, occupational therapy, nutrition and dietetics, physiotherapy and medicine degrees. The study was conducted across two Australian Universities: Monash and Edith Cowan. The students were asked to rate their levels of empathy across a wide range of questions regarding health care using the Jefferson Scale of Physician Empathy–Health Profession Students Version.

The authors hypothesised that paramedics often find themselves in environments that are unpredictable, challenging and potentially dangerous, which may be reflective of the lower empathy scores compared with other health care students. Additionally, the authors suggested that people drawn towards a career in paramedicine, may in general have a less empathetic nature. The authors identified that as the survey tool used self-reported measures, this could bias the findings and not be reflective of the student's experiences on clinical placement. Additionally, the authors stated that further research needs to be undertaken to determine why there is an imbalance in empathy levels across students enrolled in health care programs. Whilst this study did not look at empathy towards patients with mental illness specifically, it did show that overall,

paramedic students are less empathetic with regard to their patient's health needs compared with students from other health disciplines. This finding itself may influence paramedics' attitudes when assisting patients with mental illness (Williams et al., 2014).

2.7.3 Emergency medicine: patients' perspectives

Research has found patients with mental illness reporting to an emergency department (ED) for assistance are often met with staff who display stigmatising attitudes, leaving the patient feeling disrespected and humiliated (Harris, 2000). To investigate this further, Clarke and colleagues (2007) conducted focus groups to explore the following:

- Patient experience of seeking mental health services in a general hospital emergency department;
- Patient experience of care provided by a psychiatric emergency nurse (PEN);
- What further support is needed in psychiatric services (Clarke, Dusome, & Hughes, 2007)?

Participants included mental health patients and their families, community service providers and representatives from self-help groups. From the discussions, the following themes were identified: ED waiting times; staff attitudes; diagnostic overshadowing, limited options; specific needs for families and a 'wish' list for future psychiatric services.

ED waiting times

It was reported by the participants that patients with a mental illness presentation were given a lower triage score than other patients, resulting in long waiting times before being seen by a doctor. There was a perception that waiting times were up to 10 hours, however family members and service providers reported waiting times were reduced when PEN were available. The participants reported feelings of distress, being abandoned and not worthy of attention as they were required to wait long hours for assistance.

Attitudes of the staff

Participants' experiences of PEN were positive as they felt their needs were acknowledged and understood. Attitudes of the general emergency staff were viewed differently however, with participants reporting that they were left to feel shameful and guilt for presenting to the ED in the first place. These negative attitudes were further enhanced if the patient had been brought in by police (Clarke et al., 2007) which is interesting given previous reports (Gerdtz et al., 2012) that this was seen to increase patient acuity and lead to a higher triage score being employed.

Diagnostic overshadowing

As described by Nash (2013), this results in delayed or misdiagnosis as physical ill health in patients with mental illness is often seen as an extension of their mental illness rather than a genuine physical illness (Nash, 2013). Presenting to the ED for a physical health complaint was reported to be difficult for some participants as their history of mental illness was seen to be the forefront of the presenting problem with medical concerns often being dismissed. One participant reported presenting to the ED having a 'gall bladder attack' and having their medical signs and symptoms interpreted as an extension of their mental illness. This resulted in a lower triage score and extended waiting time for a PEN to review the patient. After review, the PEN re-triaged the patient with a medical complaint which resulted in a further delay to be seen by the ED physician.

Family needs

The families often felt neglected and un-supported by hospital staff in the ED. It was identified that a lack of information about mental illness regarding medications, signs and symptoms was a barrier to supporting their family member at home. Education

and training in mental health care for family members was viewed as being essential in supporting recovery from mental illness.

Limited options and wish list

Despite the negative experiences reported by the participants, the lack of mental health services meant the ED was often the only option for patients with a mental illness requiring treatment. As such, it was identified that patients should have more access to rehabilitative services after hours and at weekends. To improve triage in the ED, it was suggested that all EDs be staffed with PENs 24 hours per day, seven days per week. The participants recommended that training in providing care to patients with a mental illness should be a priority for non-psychiatric trained ED staff, as well as police, physicians and paramedics, however the study did not elaborate on why this was identified as a need any further.

The authors did acknowledge that despite some patients reporting positive experiences when attending the ED, the data were biased towards the patient's negative experiences. It was suggested that this may be reflective of the mental health patient sample as the individuals were frequent users of the ED. Despite this, the findings further support the need for ongoing mental health education and training for health care providers (Clarke et al., 2007).

Shefer et al (2014), further explored the concept of diagnostic overshadowing and the effect this had on mental illness patients overall physical and emotional wellbeing (Shefer et al., 2014). It is well recognised that people living with severe mental illness have a higher occurrence of physical illness such as diabetes and are more likely to die prematurely from their physical health problems compared with the general population (Laursen, Munk-Olsen, & Gasse, 2011; Mai, Holman, Sanfilippo, Emery, & Preen, 2011). It has been postulated that the co-occurrence of mental and physical conditions results from delayed early help seeking behaviours, poor access to healthcare as well

as medication side effects. More recently however, diagnostic overshadowing which has been considered a form of stigmatisation, has been reported to be influential in poor health outcomes (Shefer et al., 2014). In an attempt to identify factors that influenced diagnostic overshadowing, the authors conducted semi-structured interviews with 39 health care clinicians working in four main emergency departments in London. The participants included emergency department (ED) doctors and nurses as well as liaison psychiatrists and psychiatric nurses. The participants were able to identify a number of cases where it was believed that the past history of mental illness hindered the appropriate diagnosis of a physical health problem, including two cases which resulted in patient deaths with a further five cases where a delayed diagnosis resulted in irreversible long-term health problems. Issues were raised between the ED and psychiatric participants with concerns raised by the psychiatric sample suggesting the ED staff were more likely to hold stigmatising attitudes towards patients with a mental illness, claiming that they (mental health patients) were “their patients” (psychiatric team), as opposed to patients with physical health problems who they (ED staff) claimed to be “their patients”. It was reported by the psychiatric sample that ED staff were not interested in patients with a mental illness and once their past mental illness history was recognised, patients were hastily given a ‘medical clearance’ and referred to the psychiatric team. An additional area of concern was for the misdiagnosis of a serious physical illness in patients with a mental illness who frequented the ED, with the same physical illness complaint of which no diagnosis had been found on previous visits. Time constraints and communication challenges were seen as influential in diagnostic overshadowing with one ED participant reporting that given more time to conduct a thorough patient assessment may in fact allow for a more detailed patient examination and identification of the presenting problem. In addition, given that determining a patient diagnosis is often dependent on a detailed description from the

patient along with a physical examination, obtaining specific information from a patient with disordered thought process or hallucinations was seen to be very challenging.

The significance of determining a patient's capacity to refuse treatment was also identified, as one case reported the patient refused treatment after an overdose and whilst the ED and psychiatric staff deliberated over whose responsibility it was to conduct the capacity assessment, the patient died. The authors reported that this event provoked changes to policy in some emergency departments with ED doctors made responsible for the capacity assessments, however it was identified that this responsibility should lie with more experienced clinicians given the clinical implications for the outcome (Shefer et al., 2014).

This study has found that misdiagnosis of patients with a mental illness presenting to the ED with physical health problems does occur and as reported, with catastrophic results. This further highlights the significance of mental health education and training for health professionals as well as the importance of interdisciplinary approaches and open communication channels in the management of patients with a mental illness

In their exploration of the attitudes of emergency staff towards patients with mental illness, Commons-Treloar & Lewis (2008) undertook a survey study comparing professional attitudes of staff working in emergency medicine and mental health towards patients with borderline personality disorder (BPD). The study was conducted across two Australian (n=84) and one New Zealand health services (n=56). With a sample size of 140 (92 women and 48 men), staff working across nursing, medicine and allied health (social work, psychology and occupational therapy) participated in the study. Mental health staff comprised 64.3% (n=90) of the sample with the remaining 35.7% (n= 50) working in hospital emergency departments. Statistically significant and large differences in attitude scores between mental health staff and emergency department staff were reported, with the latter found to have more negative attitude

scores towards patients with BPD. The authors theorised this result could reflect environmental challenges faced by emergency staff attending to patients with BPD, with patients often requiring urgent treatment for self-inflicted injuries (Commons Treloar & Lewis, 2008).

2.7.4 Medical practitioners and medical students' perspectives

Stigmatisation of patients with mental illness by medical doctors and medical students has been reported, with studies finding these behaviours often result in delayed or misdiagnosis of clinical presentations which negatively impact the patient's recovery (Abouyanni et al., 2000; Adewuya & Oguntade, 2007; Fernando, Deane, & McLeod, 2010; Magliano et al., 2016; Mukherjee et al., 2002).

In their study, Magliano and colleagues (2016) explored the relationship between Italian General Practitioners' (GPs') attitudes and beliefs about people who have schizophrenia and whether (GPs), believed restrictions should be applied to this patient group when admitted to a general hospital. Three hundred and twenty-two GPs working across the health district of Naples participated in the study. The sample were required to complete the revised 'Opinion on mental illness Questionnaire (OQ). Approximately 50% did so after reading the WHO International Classification of Diseases (ICD-10) clinical description of schizophrenia, with the remaining participants doing so without reading the clinical description. Just over 55% of participants linked schizophrenia with dangerousness, with 30% believing the patient is a danger to self and 25.4% believing the patient is a danger to others. In addition, 31.4% of participants identified that patients with schizophrenia admitted to a non-psychiatric hospital, should be supervised 24 hours per day, with a further 18.4% identifying that the patient with schizophrenia should be separated from other patients. In response to these findings, the authors concluded that education and training for GPs about schizophrenia was warranted in the hope of reducing these stigmatising attitudes. It was proposed that

education and training may also help to change attitudes about treatment and recovery, with the study reporting that 42% of participants believed patients with schizophrenia should take anti-psychotic medications for life and that this was the cornerstone of their treatment (Magliano et al., 2016).

To investigate the premise that doctors with specific knowledge about mental illness were less likely to display stigmatising attitudes towards their patients, Adewuya & Oguntade (2007), undertook a study to explore the attitudes and perceptions of medical doctors towards patients who present with a mental illness. Three hundred and fifty doctors working across selected health institutions (two university teaching hospitals, two federal medical centres and four general hospitals) across south-western Nigeria were approached to participate in the study. With a response rate of 89.1% (n = 312), the participants completed a semi-structured questionnaire which included epidemiological datum as well as datum about mental illness. The majority of participants were male (67.3%), with representatives from surgical specialties (27.8%), medical specialities (32.7%), laboratory/pathology specialities (18.9%) and general practice (26.6%). The average years of clinical practice of the sample was 8.4 years with a range of 2 to 35 years. Just over 50% of the participants had some experience of mental illness with 41% having managed a patient with mental illness and 17.9% having a family member or friend with mental illness. The abuse of drugs and alcohol, personal, financial and marital stress, evil spirits, witchery and sorcery, brain injury and genetics were identified by the participants as precursors to developing a mental illness with patients with a mental illness also viewed as being unpredictable in their behaviour, aggressive and lacking in self-control. Stigmatisation was further evidenced with 80.8% of participants identifying they would not marry a person with mental illness. Stigma was further endorsed with approximately 80% of participants revealing they would not “accept a fully recovered former mental health patient as a teacher of young

children" with a further 92% disclosing they would not "hire a former mental patient to take care of their children. As suggested by the authors, negative attitudes towards people with mental illness is universal and when patients are stigmatised against by medical doctors, the overall impact on help-seeking and recovery is substantial. As cultural beliefs and norms can impact attitudes towards patients with mental illness, the authors reported a need for medical school curriculum to include programs on cultural awareness to try and reduce stigma towards this patient group (Adewuya & Oguntade, 2007).

To explore the hypothesis that experience is influential in stigma, studies have been undertaken comparing the attitudes and behaviours of medical doctors with medical students towards patients with mental illness. Whilst the findings suggest that both groups stigmatise against patients with a mental illness, medical students are seen to hold more negative attitudes than medical doctors who have more life and clinical experiences, suggesting a shift in attitudes as further clinical experiences are developed (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000; Fernando et al., 2010; Mukherjee et al., 2002).

In response to the Royal College of Psychiatrists five-year campaign entitled 'Changing minds: every Family in the Land' which aimed at reducing stigma towards patients with mental illness, Mukherjee and colleagues (2002) explored the attitudes held by doctors and medical students working in a London teaching hospital, towards patients with a mental illness. These attitudes were then compared with an earlier study undertaken by Crisp and associates in 2000, who explored the attitudes of the general public towards people with schizophrenia and drug and alcohol addiction(Crisp et al., 2000). Twelve hundred and seventy-three questionnaires were mailed out to all medical students studying across years 1-5 (n=832) at the London hospital and all permanent doctors (n=441) employed within the same teaching hospital.

To compare findings in attitudes amongst the sample, the authors reported that the data was separated into two groups: qualified doctors and medical students. The qualified group were further divided into senior and junior doctors and surgical and medical specialties, with the medical student sample subdivided into clinical and pre-clinical. Overall 64% of respondents were medical students and 355 qualified doctors. With a 41% response rate (n=520), results echoed that of Crisp's earlier study finding doctors and medical students communicate the same negative attitudes as the general public towards people living with schizophrenia and drug addiction. In contrast however to findings reported by Crisp et al (2000) regarding treatment and recovery, Mukherjee and colleagues (2002), reported higher levels of optimism within their sample. In addition, the findings suggest that years of clinical experience positively impacted attitudes towards patients with mental illness with senior doctors reported to display fewer stigmatising behaviours, whereas medical students yet to undertake their clinical placements showed attitudes more aligned to the general public. Clinical medical students who had received further education and training aligned more towards qualified doctors with less blame placed on the patient regarding their mental health condition (Crisp et al., 2000; Mukherjee et al., 2002).

In a comparative study, Fernando and associates (2010) investigated the attitudes of Sri Lankan doctors and medical students working in a Columbian hospital, towards patients with mental illness presentations. Five hundred and seventy-four medical students and seventy-two medical and surgical doctors participated in the study. As with the research undertaken by Mukherjee and colleagues (Mukherjee et al., 2002), medical students were divided into pre-clinical students (first two years of study) and clinical students (remaining three years of study) with the aim of identifying whether years of experience played a role in framing attitudes and behaviours towards patients with mental illness. As with studies previously undertaken (Mukherjee et al., 2002),

Fernando and colleagues used the same scale that was developed as part of the 'Changing Minds' campaign in the UK to investigate attitudes towards patients with schizophrenia, depression and alcohol addiction, as these were seen to be more prevalent in Sri Lankan culture.

The questionnaire was disseminated to the medical students at the end of a lecture with 547 participants responding to the study. In addition to this, 72 doctors working across medical and surgical wards were additionally recruited. The authors reported that patients with substance use disorders were stigmatised against more so than the other disorders, with participants reporting these patients to be a danger to self and others. The participants reported patients with schizophrenia were unpredictable, whilst patients with depression were difficult to talk to as well as reported to be unpredictable.

It was found that the levels of stigmatising behaviours and attitudes towards patients with depression and alcohol addiction, were higher in Sri Lankan doctors and medical students compared to Mukherjee and colleagues UK sample, however levels of tolerance towards patients with schizophrenia were higher in the Sri Lankan sample compared to the UK sample (Fernando et al., 2010; Mukherjee et al., 2002). The authors hypothesised that this finding may result from previous evidence which reported people with schizophrenia were often tolerated more in developing nations (Leff, Sartorius, Jablensky, Korten, & Ernberg, 1992). This study found that Sri Lankan doctors and medical students lay the blame for developing mental illness on the patient, which is in contrast to findings reported previously (Fernando et al., 2010; Mukherjee et al., 2002). Studies conducted across Asian countries have reported similar findings with regard to blaming attitudes, suggesting this is problematic in this region (Lauber & Rössler, 2007). Blaming attitudes have been found to effect patient care with regard to maintaining a non-judgemental approach and showing empathy

towards the patient, suggesting these attitudes will influence patient help-seeking behaviours and result in a decrease in patient retention (Fernando et al., 2010).

The authors concluded that stigmatising behaviours towards patients with mental illness is prevalent in Sri Lanka, with findings supporting previous studies that medical students are more likely to display stigma towards patients with mental illness compared with qualified doctors. The authors also suggested further research in this area is warranted (Fernando et al., 2010).

2.7.5 Nurses and nursing students' perspectives

With studies reporting nurses display stigmatising behaviours towards patients with mental illness and reports that nursing students in Australia rank mental health nursing poorly compared with other forms of nursing care (Happell & Gaskin, 2013), an exploration of attitudes of nurses working in mental health and general health care towards patients with a mental illness, is necessary.

In response to UK policy which identified the importance of health professionals displaying positive attitudes towards patients with mental illness and the overall effect this has on patient help seeking and recovery, Munro and Baker (2007), undertook a questionnaire study exploring the attitudes of mental health nurses working in acute mental health settings in North West England (Munro & Baker, 2007). One hundred and forty nurses were recruited, 65.7% were qualified with 34.3% employed as health care assistants. The majority of the sample were females aged less than 40 years. Additionally, the participants had worked in mental health care on average for just under 10 years.

The majority of the sample agreed that psychiatric drugs should be used to control disruptive behaviour and that nurses hold pessimistic views towards patients on acute mental health wards. The suggestion that the nurses view psychiatric drugs as the

most appropriate approach to managing disruptive behaviour, could be interpreted as un-therapeutic behaviour, dismissing other non-medicalised approaches. The authors hypothesised that the pessimistic attitudes of nurses could be linked to the fact that they are constantly working with patients in acute mental health crisis, with patients discharged as soon as they are deemed well enough to be supported within community services. This means that the nurses are only seeing patients when they are extremely unwell with often challenging behaviours. The concept of 'revolving door' patients, previously referred to by (Roberts & Henderson, 2009) where the same patient re-presents with the same health problems, has been found to be an issue in acute inpatient settings. The participants also reported communication difficulties with emotionally disturbed patients which resulted in difficulties collaborating with the patients to develop their care plans. This was seen to be frustrating for the nurses as this collaborative approach was deemed central to patient-centred care and fundamental to the nursing role. Further to these findings, the authors also reported differences in attitudes and behaviours between qualified and unqualified staff with health care assistants holding more negative attitudes towards their patients (Munro & Baker, 2007). This could be argued as further supporting previous findings of the impact of education and training and experience on stigma.

To investigate the correlation between experience and stigma, Linden and Kavanagh (2012), explored the attitudes held by student nurses compared with qualified nurses towards patients with schizophrenia (Linden & Kavanagh, 2012). As previously reported, patients with schizophrenia are often feared as they are seen to be unpredictable, however studies have shown that years of experience working with this patient group can have a positive effect towards reducing stigma and improving patient care delivery (Björkman, Angelman, & Jönsson, 2008; Fernando et al., 2010; Mukherjee et al., 2002). Ninety-five student mental health nurses studying at the

Letterkenny Institute of Technology in Donegal, Republic of Ireland and one hundred and seventy-seven qualified mental health nurses employed in Donegal mental health services, were invited to participate in the study. With a response rate of 63% and 68% respectively, sixty-six student mental health nurses and 177 qualified mental health nurses were recruited to the study. In both samples, the majority of participants were female with qualified nurses working in community and inpatient settings.

The authors reported work setting did impact attitudes, with nurses in the community setting reporting more positive attitudes towards patients with schizophrenia compared with those in the inpatient settings. It was suggested that these results may reflect the extended patient care requirements inpatients presenting as acutely unwell may need, in comparison with patients well enough to be living in the community. The results supported previous findings with regard to experience and levels of stigma, with less experienced mental health nurses wanting less social interaction with patients with schizophrenia compared with the more experienced sample. Given the impact stigma can have on developing therapeutic relationships and patient care delivery, the authors claimed education and training in undergraduate nursing programs should provide students with an opportunity to explore their own attitudes and beliefs around schizophrenia and through a process of reflection, appreciate the impact negative behaviours have on patient care delivery and recovery (Linden & Kavanagh, 2012).

Chiu-Yueh et al (2015), undertook a study to further explore the premise that health professionals are more likely to display levels of stigma towards patients with drug addiction or schizophrenia compared with major depression. This study sought to explore the effects Asian culture may have on attitudes and behaviours towards patients with mental illness in comparison with other cultures. One hundred and eighty Taiwanese registered nurses working in mental health care participated in this study. Eligibility for the study included the following: participants must be at least 20 years of

age which is the age of consent in Taiwan; with at least 12 months experience in mental health care. All participants were required to communicate in Chinese or Taiwanese. The majority of the sample were female staff nurses working in acute psychiatric inpatient units with at least 8.26 years of mental health nursing experience (Chiu-Yueh, Huei-Lan, & Yun-Fang, 2015).

The results support previous findings that nurses do display stigmatising behaviours towards patients with drug addiction and schizophrenia more so than patients with severe depression (Björkman et al., 2008; Linden & Kavanagh, 2012). In contrast however to studies reporting nurses working in mental health care are more empathetic towards their patients and display decreased levels of stigma (Björkman et al., 2008), this study found that Taiwanese nurses working in mental health care do stigmatise against patients with mental illness. Supporting previous studies, experience was found to be influential in decreasing levels of stigma (Björkman et al., 2008; Fernando et al., 2010; Linden & Kavanagh, 2012; Mukherjee et al., 2002) with head nurses or supervisors displaying more positive attitudes towards their patients compared with their junior counterparts (Chiu-Yueh et al., 2015).

Björkman et al (2008) undertook a cross-sectional study to investigate whether negative attitudes are more prevalent in nurses working in psychiatric care compared to nurses working in somatic care (Björkman et al., 2008). A total of 120 participants were recruited for the study including somatic care nurses (n=69) and psychiatric care nurses (n=51). Sixty four percent of the somatic care nurses were employed as registered nurses and thirty six percent employed as assistant nurses, whilst twenty one percent of the psychiatric care nurses were registered with a further thirty percent employed as assistance nurses. As with previous studies (Crisp et al., 2000; Fernando et al., 2010; Mukherjee et al., 2002), the authors reported patients with drug addiction, alcohol addiction and schizophrenia were stigmatised against more so as this group

were seen to be unpredictable, dangerous and difficult to communicate with. Nursing staff working in somatic care as well as assistant nurses however, reported higher degrees of dangerousness and unpredictability in this patient group with somatic care nurses perceiving patients with mental illness to be more demanding than other patients. The authors also reported an association between years of experience and a decrease in stigma which supports previous findings (Fernando et al., 2010; Mukherjee et al., 2002) that experience is influential in decreasing stigma towards patients with mental illness. Conclusions drawn from this study were that nurses working in psychiatric care display decreased stigma towards patients with mental illness compared with nurses working in somatic care (Björkman et al., 2008).

Experience of health care professionals has been found to be influential in displays of stigma towards patients with mental illness. Work environment has also found to be significant with studies reporting nurses working in acute psychiatric inpatient care are more likely to display negative attitudes towards their patients compared with nurses working in mental health community settings.

2.7.6 Pharmacists' perspectives

As with GPs, pharmacists play a significant role as primary health care providers in the community and this often places them at the forefront in providing assistance to patients with mental illnesses, in particular in medication management (McKee, Larose-Pierre, & Rappa, 2015). Given that over eleven percent of prescriptions in Australia in 2007-2008 were for mental health related illnesses (O'Reilly et al., 2010), pharmacists play a significant role in providing care to patients with mental illness and their attitudes and behaviours towards these patients are central to help seeking and patient recovery.

Phokeo et al (2004), undertook a study investigating community pharmacists' attitudes and professional interactions towards patients who use medication to treat psychiatric

illness compared with patients who use medication to treat cardiovascular disease. Eight hundred pharmacies were randomly chosen in the Toronto area with participants asked to complete a questionnaire which covered content including attitudes, comfort when counselling, communication and professional interactions with mental health and cardiovascular health patients. A total of 35% (n=283), of invitees agreed to participate in the study with participant demographic data finding the majority were male with a Bachelor of Science Degree and nearly half the sample graduating more than 20 years previously. Additionally, 66% of participants reported knowing a person with a severe mental illness, with a further 29% having visited a patient on a psychiatric ward.

It was reported that in general, the participants did not discriminate towards patients with a mental illness, however they did feel less comfortable in exploring the health concerns of mental health patients compared with patients presenting with a cardiovascular disease. The participants reported they were less likely to routinely monitor patients with mental illness for medication side effects compared with patients with cardiovascular disease. Overall, this could have a detrimental effect on patient care and health outcomes for mental health patients. Additionally, it was reported that the majority of participants found patients with a mental illness were less likely to talk to their pharmacist about their mental illness compared with patients with cardiovascular disease. This may result from the patient's previous experiences in help seeking with negative outcomes. The participants also reported a lack of education and training in mental health care during their undergraduate training did not provide the necessary knowledge and skills required to assist patients with mental illness. It could be argued that overall, this may result in patients with mental illness receiving less care and attention from pharmacists compared with patients with cardiovascular disease (Phokeo et al., 2004).

In a study further exploring the lived experience of pharmacists, Murphy and colleagues (2016), investigated pharmacists' experiences in providing care to patients with a mental illness, including their understanding of mental illness and drug addiction. Given the role of the community pharmacist when assisting patients with a mental illness or drug addiction had expanded beyond the dispensing of medications to include services such as delivery of services in patient homes and primary health care clinics as well as screening of patients for depressive illnesses, the authors acknowledged the importance of exploring the lived experiences of pharmacists further (Murphy et al., 2016).

A total of six practicing pharmacists were recruited for the study. One focus group was conducted with four participants with face to face interviews being conducted with the remaining two. Challenges that pharmacists encountered in providing optimum care to patients with mental illness and addiction were identified as stigma, workload and knowledge, skills and competence in medication management for this patient group. All participants identified the importance of building a rapport with patients with mental illness, however time constraints often interfered with this. Stigma was identified as a barrier to help seeking and the problems generated from this. It was also reported that pharmacists along with other health professionals have their own negative perceptions about mental illness, with reports that a diagnosis of bipolar disease or schizophrenia is often associated with negative thoughts about the type of person requiring medication for their illness. It was recognised however, that education and training did have a positive effect on decreasing stigma. Education and training was also reported to improve communication and collaboration between community pharmacists and other health care providers which further impacted the health care and experiences pharmacists provide to patients with a mental illness or drug addiction (Murphy et al., 2016).

2.7.7 Comparison of attitudes amongst health care workers with the general public

Studies have also compared health professionals attitudes with those of the general public and have found both sample groups display negative attitudes to patients with a mental illness (Reavley et al., 2014; van Boekel et al., 2015; Winkler et al., 2016).

To investigate this further, Reavley and associates (2014), explored the attitudes of Australian psychiatrists, psychologists and GPs towards patients presenting with mental illness. Using the same survey instrument, the results of this study were then compared with a previous study (Yap, Mackinnon, Reavley, & Jorm, 2014), which investigated the attitudes of the general public towards mental illness (Reavley et al., 2014). When comparing the two studies, it was reported that members of the general community held negative beliefs and displayed negative attitudes towards people with mental illness more than health professionals, however within the health professional sample, GPs were found to stigmatise against patients with mental illness more so than psychiatrist and psychologists. In support of previous findings that people with a mental illness are often perceived as strange, frightening, unpredictable and aggressive (Björkman et al., 2008; Fernando et al., 2010; Mukherjee et al., 2002), this study reported that GPs found patients with mental illness to be dangerous and unpredictable. The authors suggested that this finding may reflect a lack of education and training in mental health care for GPs, further arguing the significance of education and training in mental health care in improving help seeking behaviours and patient recovery (Reavley et al., 2014).

In a further study, Winkler et al (2016) compared community attitudes towards people with mental illness with those held by medical doctors in the Czech Republic, with the aim of informing Czech mental health care policy. A total of 1200 medical doctors and 1810 community members participated in the survey study with findings revealing that

whilst Czech medical doctors held fewer stigmatising attitudes to patients with a mental illness compared with the Czech community, stigma was however prevalent in both sample groups. Medical doctors and community members both shared less favourable attitudes towards mental illness and the perceived risk of violence. Medical doctors believed the best place to treat patients with a mental illness was in a mental health hospital compared with community and residential care which was preferenced by the community sample (Winkler et al., 2016).

Studies have also found a link between experience of health care professionals and reduced stigma towards patients with mental illness (Björkman et al., 2008; Fernando et al., 2010; Mukherjee et al., 2002). Van Boekel and colleagues (2015), compared the attitudes of lay people and health professionals towards people with a substance use disorder (SUD). Given previous findings of experience and stigma, the authors postulated that attitudes towards people with SUD would be less negative among people with more experience or are frequently challenged by SUDs. GPs, mental health and addiction specialists, community members as well as patients currently undertaking treatment for a substance abuse disorder, were invited to participate in the study. The majority of participants were neutral in their responses to people with a SUD are intelligent, able to maintain a steady job and tend to be criminal. Whilst all participants expressed a desire to have less social contact with people with SUDs, a significant proportion of the general public and GPs reported people with a SUD are untrustworthy and tend to be aggressive. This supports findings from previous studies (Reavley et al., 2014; Winkler et al., 2016) where GPs were found to align more with the general public compared with other health professionals in their beliefs about mental illness and attitudes towards patients with mental illness. Given that GPs are often seen as gate-keepers for referral to more specialised treatment pathways, the

findings warrant ongoing research into the influences of negative attitudes and behaviours in primary health care (van Boekel et al., 2015).

2.7.8 Influence of perceptions of violence and stigma

This literature review has identified several factors influential in cultivating health professionals negative attitudes towards people with mental illness. In addition to this, the link between stigma and perceptions of aggression and violence in patients with mental illness is well reported (Angermeyer, 2000; Björkman et al., 2008; van Boekel et al., 2015). The media often portrays people with severe mental illness (SMI) such as schizophrenia, as being dangerous and unpredictable in nature. This was evidenced by a study conducted by Philo et al (1994) who reported the media as being influential in constructing social cultures and in the instance of mental illness, developing stigmatising behaviours. The study was conducted over two phases. Phase one was to review content of factual and fictional media outputs with an aim to identify the dominant messages about mental health presented in the media. Mental illness was featured widely across factual and fictional media outputs with five main themes emerging. The relationship between mental illness and violence was overwhelmingly reported as the most common finding in media outputs.

In the factual category, the majority of these were news reports of violent crimes where the perpetrator was referred to as being mad, psycho or a maniac, whilst the fictional category included films where crazed killers were pursued or mental illness and split personality were linked together (Philo et al., 1994).

In phase two, a sample of seventy people were recruited to investigate the processes by which information generated through the media is interpreted by audiences and utilised to inform attitudes and behaviours. The sample were divided into seven groups of which six comprised a general sample, with one group consisting of consumers of mental health services all working in a computer skills training program. The

participants were given a news headline and asked to write their own story about what had occurred. The headline was about a young boy who had been attacked by an arsonist. Phrases such as evil maniac were used to describe the 'perpetrator' in the story and despite the fact the case was fictional, eighteen participants claimed to remember the details. To investigate further the role media plays in social construct, the sample participated in face to face interviews where one of the key issues explored was the association between mental illness and violence. Overwhelmingly, the majority of the sample believed that mental illness and violence were linked with the media reported as fuelling these beliefs. This was further evidenced by one participant stating that despite interacting with patients from a psychiatric hospital and asserting the interactions as being non-violent, she claimed that she was still scared because it was a mental hospital with dangerous patients and these beliefs had been cultivated through the media. The influence media has on constructing a belief that mental illness and violence are aligned is extremely concerning and the impact this may have on help seeking behaviour and recovery for people living with mental illness is critical and warrants further investigation (Philo et al., 1994).

In more recent times, the association between severe mental illness (SMI) and violence has been reported in connection with mass shootings in the USA. To explore the influence of media in influencing stigmatising attitudes towards patients with SMI, McGinty et al (2013) conducted a randomised control study where participants were randomised to read one of three news stories or to a 'no exposure control' group. The news stories were synonymous in that they all discussed a mass shooting event where the perpetrator had a diagnosis of SMI. Story one described the event where the shooter reported as agitated and talking to himself, was witnessed to arrive at a community park, take a gun out of a bag and start shooting. The story reported a total of three adults killed with a further three adults and two children wounded, with the

shooter apprehended by police. Story two and three described the same events verbatim, however story two included a passage referring to the restriction of gun licences for people with SMI as critical in protecting the public from dangerous people. The additional information included in story three was in reference to the ban on military style large ammunition clips where 30-100 bullets can be fired without the shooter needing to reload. This was not specific to people with SMI but to the population in general. The authors reported that all three stories increased negative attitudes towards people with SMI and found that this sample were more likely to socially exclude people with SMI compared with the control group. The sample who were exposed to the mass shooting narrative alone as portrayed in story one, had a higher perception that patients with SMI were dangerous and unpredictable compared with the control group. As was hypothesised by the authors, support for a ban on military style large ammunition clips and gun restrictions for patients with SMI was reported by the news story sample, which further supports the notion that media outputs are influential in constructing stigmatising behaviours towards patients with SMI (McGinty et al., 2013).

The association between severe mental illness and violence has been reported, however determining if SMI is the only risk factor for violence, is important for health care providers and health care policy makers. If additional influencers are identified, health care approaches can be modified, and policy change adopted to address all problems suitably, with the aim of reducing violence and improving patient care and health outcomes. Stigma may also be reduced if it is found that additional factors significantly increase violence in people with SMI. Swartz et al (1998) conducted a study investigating the influence substance abuse and medication non-compliance in people with SMI had on violent behaviours (Swartz et al., 1998). Severely mentally ill involuntary patients admitted to inpatient psychiatric facilities in North Carolina were

invited to participate in the study. Data was collected from three sources which included 331 participants, designated family member and by a review of hospital documentation including clinical assessment and treatment notes. Extensive face to face interviews were conducted with the patient participants along with phone interviews conducted with the designated family member. Sociodemographic data, personal historical data and information concerning violent behaviour was explored. The authors reported the purpose of combining the three data sets was to implement a severity threshold for serious violent events which included assaults or threats leading to injury (Swartz et al., 1998). The results showed a direct link between SMI, substance use disorder, medication non-compliance and violence, with patients in this group twice as likely to commit a serious crime resulting in injury. Further to this, the authors acknowledged the significance of both substance use disorder and medication non-compliance, as it was found that these issues alone were not reported as significant risk factors for violence. Additionally, it was also noted that substance use disorder and medication non-compliance were potentially reciprocating problems which reinforced their associated dependence, with medication compliance compromised by impairment from substance abuse, whilst poor medication management was perceived to lead to substance abuse as a form of self-medication. In conclusion, the authors identified a need for a multidisciplinary approach to managing patients with a mental illness and substance use disorders, as the findings suggest the problems compound one another and tackling the issues in isolation would be less effective than a combined approach (Swartz et al., 1998).

Elbogen and Johnson (2009) argue that over the past twenty years, research findings supporting a clear link between mental illness and violence have been conflicting. In addition to this, the authors contend that with advancement in evidence-based risk assessment tools which evaluate a patients risk of violence, research undertaken

elucidating if and how severe mental illness (SMI) leads to violence and aggression is justified (Elbogen & Johnson, 2009). The objective of their study was to use data from the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) to investigate risk factors prospectively predicting violent behaviour and the association between SMI and violence in a representative sample of the US population (Elbogen & Johnson, 2009). Data were collected from 43,093 participants in Wave 1 of the study which was undertaken to provide information about mental disorders and substance use disorders. With the purpose of exploring further the participant's experience of mental disorder and or substance use disorder identified in Wave 1, 34,653 participants were re-interviewed three years later in Wave 2 of the study (Elbogen & Johnson, 2009; Hasin & Grant, 2015). A total of "41.68% of the sample had a life-time diagnosis of severe mental disorder and/or substance use and/or dependence". Whilst people with SMI were reported more likely to have a history of violence compared with people with no history of SMI, the authors reported SMI was also associated with a number of factors associated with an elevated risk of violence such as physical abuse, parental criminal history, unemployment and juvenile detention. Overwhelmingly however, a co-occurrence of SMI and substance use disorder was found to be a significant risk factor for violence with people in this group ten times more likely to display violent and aggressive behaviours compared with people with SMI alone (Elbogen & Johnson, 2009).

2.8 Legal and ethical issues pertaining to mental health care in the out of hospital setting

Given the nature of providing out of hospital emergency care which often occurs in chaotic environments with the patient, family and friends present, paramedics are often faced with legal and ethical dilemmas. Terminating a cardiac arrest because it is believed that the resuscitation is futile or disregarding the family's request to terminate

a resuscitative effort because the patient's wishes were for 'do not resuscitate' despite no written communication available confirming this, is ethically challenging. Leaving a patient at home because they have refused lifesaving care and knowing that the patient will die if they do not receive the treatment, are issues that are not uncommon, yet create an ethical and legal challenge for paramedics (Brady, 2014; Guru, Verbeek, & Morrison, 1999; Stone et al., 2017). As the paramedic role continues to expand, paramedics will face increased legal and ethical dilemmas, in particular around clinical decision-making (Townsend & Luck, 2009).

Research has found that paramedics are often confused and lack confidence when navigating their way through the complexities of mental health legislation, in particular when determining if they have the legal right to take a patient into protective custody for ongoing care, despite the patient's refusal (Bradley, Townsend, & Eburn, 2015; Shaban, 2004; Townsend & Luck, 2009).

In response to the number of call outs paramedics receive to assist patients with mental illness presentations and given that paramedics are often the first point of contact for this patient group, the New South Wales (NSW) government amended the *Mental Health Act 2007 NSW* to accommodate this changing climate. The amendments provided the paramedics with autonomous decision-making abilities to bypass emergency departments and transport patients a with mental illness directly to a designated mental health facility. Paramedics were also given additional legal rights to use reasonable force, sedation and restraint to transport patients as well as carry out a search on the patient (Townsend & Luck, 2009).

In their report, Townsend and Luck (2009), acknowledged the importance of education, training and support for NSW paramedics to be able to treat their patients effectively and safely, given their additional legal powers (Townsend & Luck, 2009). This further recognises previous research which reported a lack of paramedic confidence in

complying with mental health legislation due to a deficit in education and training (Shaban, 2004). Townsend and Luck (2009), support earlier studies which found conflicts regarding legal and ethical responsibilities were likely to impact the care patients with mental illness presentations receive (Shaban, 2004; Townsend & Luck, 2009).

In a similar context, Bradley et al (2015), reported on the impact the *Mental Health (Treatment and Care) Amendment Act 2014* had on paramedic care of patients with mental illness presentations in the Australian Capital Territory. At the time of writing, the authors identified that amendments to the *Act* had not occurred, however the changes that will be introduced will give paramedics the same legal authorisations as paramedics in Queensland, New South Wales, South Australia and the Northern Territory, to apprehend a patient and transport them to an authorised mental health facility (Bradley et al., 2015).

As with the Queensland and NSW *Acts*, the paramedic or police officer must believe "on reasonable grounds that the person has a mental disorder or mental illness and that the person has attempted, or is likely to attempt, to inflict serious harm on him or herself or another person" (Bradley et al., 2015). The authors go on to define 'reasonable grounds' is more than an inkling or suspicion; however conclusive proof is not required. The amendments also authorise paramedics to remove a patient with force if necessary and undertake a search of the person in certain circumstances, which reflect the Queensland and NSW *Acts* (Bradley et al., 2015).

The authors presented arguments for and against the upcoming changes:

Arguments supporting upcoming change:

Given that paramedics frequently engage with patients with a mental illness, and in line with the aims of the National Mental Health Strategy (NMHS) to integrate mental health

services more broadly within the health system, it was argued that this change in paramedic practice was in line with the NMHS objectives. It is also believed that once paramedics complete education and training for managing patients with a mental illness, they will be more skilled at assessing a patient to determine whether they meet the requirements of the *Act*, more skilfully than police which is current practice (Bradley et al., 2015)

Arguments against upcoming change:

With regard to the NMHS objectives, the opposing view is that the legislative changes may in fact damage the paramedic-patient relationship, further impacting patient care. Concerns have been raised that the changes may lead to a culture of 'defensive practices' which occur when decision-making is taken away from the patient and is informed by the interests of the health provider such as a fear of litigation (Bradley et al., 2015; Townsend & Luck, 2009). 'Defensive practices' are at odds with patient-centred care approaches which are further objectified within the NMHS aims (Bradley et al., 2015).

In their exploration of mental health legislation and the impact this will have on paramedic practice, Parsons et al (2011) hypothesised that the education and training paramedics receive in providing care to patients with a mental illness will govern how paramedics apply mental health legislation and how confident they are in their approaches to do so (Parsons, O'Brien, & O'Meara, 2011). This was further explored in a study conducted by Rees et al (2017), who emphasised the often challenging scenario paramedics face between practicing within a legal framework and doing what is ethically believed to be the right thing when treating patients who self-harm (Rees et al., 2017). The focus of mental health legislation in Australia and the United Kingdom (UK), is to provide patients with mental illness equity in health care and protection of their rights to determine their own health care through a patient-centric approach (Rees

et al., 2017; Townsend & Luck, 2009). These tenets are embedded within the four principles of bioethics first published by Beauchamp and Childers in 1979, which were developed to assist in ethical decision-making within health care (Townsend & Luck, 2013).

1. Autonomy: respects the patient's right to make an informed choice about their own health care including acceptance or refusal of treatment. To be able to do this, the patient must have the capacity to understand the consequences of their decision;
2. Non-maleficence: which is the foundation for 'duty of care', states that a health care worker should do no harm to a patient either through action or inaction;
3. Beneficence: asserts that as far as possible the healthcare provided positively benefits the patient;
4. Justice: contends that all patients should be treated fairly with respect to their own needs including access to health care (Townsend & Luck, 2013).

The principles of non-maleficence and beneficence can prove challenging at times for health care providers as in the example of a patient presenting with a fractured mid shaft femur, application of a mechanical splint may cause initial pain and distress (despite the administration of strong analgesics), however realigning the femur is beneficial to the patient as it can reduce the amount of bleeding and subsequent effects from hypovolaemia (Curtis & Ramsden, 2016).

When called to assist patients who self-harm, Rees et al (2017) reported respecting the patient's right to refuse care and wanting to treat the patient and take them to a health facility for ongoing care, often resulted in legal and ethical conflict for paramedics. A purposeful sample of 11 paramedics employed by the National Health Service (NHS) in the UK were recruited for the study and through semi-structured interviews, the authors identified two main themes that emerged: 1. professional, legal and ethical tensions; 2. relationships with police and coercion.

The paramedic participants reported a number of factors which influenced their decision-making with regard to treating patients who self-harm. Respecting the patient's choice to refuse care and determining the patient's capacity to do so was considerably challenging. Further fuelling feelings of uncertainty, the paramedic participants reported support and advice from mental health practitioners was often unavailable, whilst consulting with a clinical support officer (CSO) or a GP on call would render the same response that they are the clinician on scene and it is their responsibility to determine the patient's capacity to refuse treatment. The authors did find that the majority of the sample believed they had a reasonable understanding of their legal responsibilities when it came to managing patients who self-harm, however they did report a lack of confidence in its application. This often resulted in autonomy versus beneficence conflicts between legal obligations and the paramedic's own clinical judgement of what was in the patient's best interest, which often resulted in the decision to transport the patient for ongoing care despite their refusal. The paramedic participants did report that the preference was for the patient to agree to treatment and transport, however if this was not probable, the use of coercion, including lying to the patient would transpire. Paramedics and police used an unofficial method of coercion to take patients into protective custody. In the UK, under sections 135 and 136 of the *Mental Health Act 1983,* police could enact their powers of detaining a person, however this could only be enforced in a public place. To do this, a number of the paramedic participants reported lures such as "come outside for a cigarette" were used to entice the patient outside where they could be legally detained by police. Both police and paramedics reported feeling displeased with having to undertake these actions, however the concern that the patient would kill themselves if left at home, was the catalyst for these measures. The paramedic participants also felt that these actions resulted from a reliance of legislation which was not seen to support patient wellbeing

as well as a lack of support for their clinical skills and decision-making (Rees et al., 2017).

Despite the recognition for the need for education and training in mental health legislation and reports that this is provided through in-service training, paramedics continue to report a lack of confidence in their abilities to observe all requirements of their legal obligations. Tensions have been reported by paramedics when observing the patient's right to refuse care and the belief that ongoing care is in the best interest of the patient and through practices such as coercion, treat and transport the patient against their will (Rees et al., 2017; Roberts & Henderson, 2009; Shaban, 2004; Townsend & Luck, 2009).

Chapter 2 Summary

Chapter two has presented a critical review of the literature pertaining to the care of patients with mental illness. As there is a paucity of literature pertaining to paramedic care of patients with mental illness, the literature review was broadened to include other health care professionals and police. The burden of living with a mental illness in Australia, was reported third highest behind cardiovascular disease and cancer, however inequities were reported in the care provided to cardiovascular disease and cancer patients compared with mental illness. Given that 20% of the Australian population were reported to be living with a common mental illness in any one year, it is critical that patients with mental illness have access to adequate mental health services which include appropriately trained health care and emergency services professionals who are at the coalface of providing care to these patients.

Mental health education and training for health professionals and emergency services personnel however, was reported in the literature to be inadequate. A number of studies have found that health care professionals and police are not provided with adequate education and training to provide effective care to patients with mental

illness. Studies however, have reported the effectiveness of mental health education and training in increasing confidence and competence of health care providers delivering care to patients with mental illness and decreasing stigma towards patients with mental illness from health professionals. Education and training has also been reported to increase confidence levels in communication between health care professionals and patients with mental illness which resulted in early recognition of mental illness and decreased hospital waiting times.

Whilst there is a paucity of research into paramedic education and training for managing patients with a mental illness, the findings replicate those from other health professionals and police. Paramedics feel underprepared in their ability to assess and manage patients with mental illness. Given that paramedics are often the first point of contact for this patient group, it is essential that they are equipped with the knowledge and skills to identify mental illness presentations and provide appropriate evidence-based care to their patients despite their health presentation.

The initial assessment and management of patients with mental illness presentations has been reported to be challenging. Studies have found that first responders are often met with patients presenting with acute behavioural disturbances in often chaotic uncontrolled environments, which impact clinical decision-making processes. In comparison to expert paramedics who rely on experience and intuition, novice paramedics have been found to depend heavily on organisational protocols and guidelines which can result in inappropriate management if the focus of treatment is on sedation and restraint with little reference to general assessment, communication and de-escalation. Decision-making processes used by police when attending to people with mental illness presentations, was reported to be motivated by time constraints and the likelihood that the officer would be required to stay with the person in the emergency department until they are assessed, as opposed to the health care needs of

the person. This often resulted in the person being arrested and managed through the judicial system, negating or delaying their health care requirements. Studies have found that patients arriving at the ED with mental illness presentations were reported to be triaged at a lower level due to the physical health focus of the Australasian Triage Scale (ATS) categories. The triage nurse uses this tool to assist in determining whether the patient needs to be seen by a doctor straight away or if it is safe for them to wait a number of hours and given the physical health focus, this often resulted in long wait times for patients with mental illness in less than suitable environments which had an overall negative impact on the patient experience.

Changes to mental health legislation across a number of states has resulted in significant changes to paramedic management of patients with mental illness. Under the new legal framework, paramedics are authorised to take a patient into protective custody irrespective of their refusal and transport them to a health care facility for ongoing assessment and management.

Research however has found that paramedics lack the confidence to enact their new legal powers which has been directly linked to a deficit of mental health education and training. Studies have found paramedics are confused about their legal responsibilities and with a fear of litigation, will resort to unethical procedures such as coercion leading to patient arrest by police as well as defensive practice resulting in the patient taken into protective custody without completing a thorough assessment and additionally, practice less invasive actions such as de-escalation.

In addition to these findings, the literature review also found that overwhelmingly, patients with mental illness are stigmatised against by community members and alarmingly, health care professionals, whose role is to support them in their health care needs and promote recovery from their illness. Mental illness alone leads to social

isolation, poor quality of life and increased mortality which is further compounded by stigma leading to negative help-seeking behaviours and reduced recovery.

A strong link between stigma and poor mental health literacy has been reported in health professionals and the general public. Studies have found that GPs often share the same stigmatising beliefs about mental illness as lay people and given they play a pivotal role in primary health care, the potential for delayed treatment or misdiagnosis is considerable. Stigma has also been linked to the perception that patients with mental illness are dangerous and unpredictable, with studies reporting the media play a significant role in fuelling these negative beliefs. In addition however, research has identified that the co-occurrence of mental illness, substance abuse and medication mismanagement combined, create a higher risk for violent behaviour than mental illness alone.

Improving mental health literacy through education and training was found to decrease stigma in health professionals and the general public. Additionally, experience of health professionals was also linked to more positive attitudes towards patients with mental illness.

The following chapter will provide an overview of the socioeconomic, environmental and health status of Tasmania. As the research has been conducted in Tasmania, this discussion will help to contextualise the research and findings.

Chapter 3 Tasmanian context

The previous chapter has provided a critical analysis of the literature pertaining to the care of patients with a mental illness.

This chapter will provide an overview of the health, socioeconomic and environmental factors that make Tasmania unique. The chapter will also provide a discussion around the challenges of mental health care in Tasmania.

3.1 Tasmania: beauty and the beast

This study was conducted in Tasmania which has its own unique health, environmental and socioeconomic challenges. These challenges inform the health of the Tasmanian population, therefore it is important to identify and consider these in the context of this study.

Tasmania is the only island state in Australia and is located approximately 240 km south of Victoria (Ellison, 2010; Roe & Scott, 2017). Globally, Tasmania is known for its natural beauty with the Tasmanian wilderness listed as one of the largest conservation reserves in Australia and one of the three largest wilderness areas still remaining in the Southern Hemisphere (Australian Government, 2017b). Tasmania boasts one of the top 10 beaches in the world with its iconic Wineglass Bay situated in the Freycinet National Park on Tasmania's east coast (Tourism Tasmania, 2017).

Along with its geographical beauty, Tasmania is also a rich exporter of metals such as aluminium and zinc, as well as meat and seafood products including beef, abalone and salmon (Tasmanian Government, 2017a).

Whilst Tasmania is known on an international stage for its heritage, culture and natural beauty, at a state and national level the picture is not quite as aesthetically pleasing, with Tasmania rating the lowest nationally in socioeconomic status, health, education and employment.

The Tasmanian Chamber of Commerce and Industry (TCCI) 2016 report, found from the period between 2015 and 2016, Tasmania was the only state or territory to record a decline in employment rates and overall has the highest unemployment rate. This can partly be attributed to the fact that Tasmania also has the highest ageing population with nearly one in five people aged 65 years or older, however the number of Tasmanians aged between 15–64 who are unemployed or not actively seeking employment, has also increased. This contrasts with other states and territories which continue to report a downward trend. In addition, housing costs in Tasmania were reported to be the lowest in Australia, however Tasmanians also have the lowest median weekly income nationally. The gross household incomes for Tasmanians was on average 32% less than the national average with employee compensation (wages, salaries and fringe benefits) per household on average 34% below the national average. Tasmanians were also reported to be the most dependent on government benefits in Australia. Tasmania also falls behind on the educational front with rates of participation and attainment the lowest nationally, excluding the Northern Territory. Regarding higher education qualifications, nationally, 25.7% of the population aged between 15 and 75 have attained these compared with 19.5 % of Tasmanians. Tasmania has the highest percentage of students leaving school in years 9 and 10 who do not obtain further education qualifications. Whilst the retention rate for students continuing on from year 10 to year 12 has improved in Tasmania since 2013, it still rates as 11% below the national average (Eslake, 2016).

The state of health in Tasmania has also been reported to be the poorest nationally with the 2014-2015 National Health Survey finding Tasmanians had the highest rates of arthritis, asthma, heart disease, hypertension and kidney disease. Even though vegetable consumption was highest in Tasmanian men and women nationally, Tasmania was reported to have the highest number of obese people compared with

other states and territories. Tasmanian men and women are the most inactive nationally when it comes to participating in sufficient physical activity (Australian Bureau of Statistics, 2015b).

Fast forward to 2017-2018 and Tasmanians continue to have the highest rates nationally of chronic conditions such as arthritis, asthma, cancer and heart disease. It was also reported that 70.9% of Tasmanian adults were overweight or obese, which is an increase of 3.4% from 2014-2015 (Australian Bureau of Statistics, 2018).

Along with physical health, Tasmania's picture of mental health and wellbeing is also poor. As part of the 2016 National Report on Mental Health and Suicide prevention, the National Mental Health Commission reported from the period 2014-2015, that Tasmania at 20.8% had the highest prevalence of mental illness. At 19.0%, Tasmania was reported to have the highest prevalence of chronic health conditions such as cardiovascular disease and renal disease in people with mental illness. During this period, Tasmania was ranked the second highest regarding rates of suicide with a 16.3 per 100,000 population, compared with the national average of 12.6 per 100,000 population. In addition, the Northern Territory was ranked number one with a rate of 21.0 suicides per 100,000 population (Australian Bureau of Statistics, 2015a; National Mental Health Commission, 2017).

Tasmanians living with a mental or behavioural problem increased in 2017-2018 to 21.7% which was also higher than the national average for the same period (Australian Bureau of Statistics, 2018).

In response to challenges faced within the health system, the Tasmanian Government introduced the *One State, One Health System, Better Outcomes (One Health System) Reforms* in July 2015, which included an overall restructure from the previous Tasmanian Health Organisations (THOs) where each region (North, South, North West) were responsible for their own hospital and community services, to the amalgamation

of the three THOs to form the Tasmanian Health Service. Centralisation of health services aimed to improve service delivery and reduce administrative and clinical services duplication (Department of Health and Human Services, 2015).

3.2 Mental health care in Tasmania

Mental health services can be accessed in both the public and private sector and in May 2017, the Tasmanian Government Minister for Health, Michael Ferguson, announced increased funding would be allocated to the mental health sector, to better support Tasmanian children and adolescents at risk of developing mental illness as well as adults living with severe mental illness (Ferguson, 2017).

Access to care for patients with a mental illness in the primary health setting however, is limited in both the options available and the times that services can be accessed. Outside the emergency departments (ED), there is little option for patients seeking help with a mental illness presentation. For example, headspace provides mental health and other health services to people aged 12-25. In Hobart, the service is available most week days from 0900-1700 hours, however on Tuesday there is an 1100 start time and Thursday a 1900 finish time. The service is not available on weekends (headspace, 2018). Parkside community mental health services in Burnie, provides assessment and treatment for adults with a mental illness. This service also only operates Monday–Friday from 0900-1700 hours (Department of Health and Human Services, 2017b). Afterhours services are often provided through phone counselling supports such as the Mental Health Service Helpline, which do not provide for face to face support, further compromising patient assessment and management. Patients therefore, are often reliant on emergency services such as ambulance services and emergency departments (ED) to provide emergency and non-emergency care and assistance to patients with a mental illness outside of traditional working hours (Hundertmark, 2002; O'Sullivan, 2014; Rees et al., 2014). In Tasmania, this is further

enhanced given that transport options available to paramedics for patients with mental illness is limited to EDs only (Tasmanian Government, 2017c).

Ambulance Tasmania (AT) is a state-owned ambulance service under the organisational structure of the Health and Human Services. AT provides emergency out of hospital care, non-urgent patient transport services and aeromedical retrieval services to the Tasmanian community. The operational emergency management service (EMS), comprises 306 officers including Intensive Care Paramedics (ICP), Paramedics (P) and Graduate Paramedics (GP) and are supported by over 600 volunteers, who provide out of hospital care at over 53 urban, rural and remote ambulance stations. As afterhours services for patients with mental illness presentations are significantly limited in Tasmania, AT can often be one of the first contacts for this patient group, given that they provide a 24 hour/7 day per week health care service (Tasmanian Government, 2017b). This is supported by a review of AT clinical and operational services which found that along with soft tissue injuries, burns and minor wounds, mental health issues were the most common diagnoses that AT paramedics encountered (Tasmanian Government, 2017c).

In addition to changes to health care delivery in Tasmania, the *Mental Health Act 1996* was replaced in February 2014 with the *Mental Health Act 2013,* resulting in significant changes to care of patients with a mental illness and paramedic practice which will be discussed further in the thesis (Department of Health and Human Services, 2014b).

Chapter 3 Summary

This chapter has provided an overview of the health, socioeconomic and environmental factors that are unique to Tasmania. As this research was undertaken in Tasmania, it was important to consider the impact these factors may/may not have in providing care to patients with a mental illness.

Tasmania is known nationally and internationally for its heritage, culture and natural beauty; however, it also rates poorly with regard to health and economic status compared with other Australian states and territories. Tasmania recorded the highest unemployment rates in the 2015-2016 period. In addition to this, Tasmanians reported the highest rates of chronic health issues in the 2017-2018 period. The number of Tasmanians living with mental illness or a behavioural problem also increased in the same period and overall was higher than the national average.

Accessing mental health in Tasmania is limited in both options available and times that services can be accessed. After hours is usually limited to the emergency department which is less than optimum in the majority of cases. Ambulance Tasmania is often one of the first contacts for patients with mental illness problems as they are accessible 24 hours per day, seven days per week. A 2017 report found that attending to patients with a mental illness presentation, was one of the most common call outs for Ambulance Tasmania paramedics.

The next chapter will present the methodology which has been adopted to answer the research question based on the literature review that has been undertaken and the identification of gaps in the literature that have been found.

Chapter 4 Methodology

The previous chapter provided an overview of unique challenges faced by Tasmanians with regard to socioeconomic status, environmental and health factors which included access to health care for patients with a mental illness.

Chapter four will provide a detailed discussion of the theoretical framework and techniques used to construct and undertake the study to answer the research question:

Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicidal ideations?

Often the terms methodology and methods are used to describe the same phenomena, however Braun & Clarke (2013) and Mackenzie and Snipe (2006), argue that this interchanging of terms is inaccurate. The authors assert the term method, refers to the 'systematic approaches' encompassing the tools and/or techniques used for data collection and analysis such as conducting surveys, interviews or focus groups for data collection and undertaking content or thematic analysis for analysing the data. Methodology is further described as the 'science of methods' referring to the framework within which the research is conducted, including theories and practices that underpin conducting research. It prescribes the appropriate methods to be used to undertake the research (Braun & Clarke, 2013; Mackenzie & Knipe, 2006).

4.1 Research paradigm

It has been argued that trying to expound an understanding of the philosophical concepts and theory which frame the research methodology, can result in the research process becoming arduous for some researchers, in particular those in their early research career. Mertens (2010), however, asserts the importance of understanding this relationship of philosophical concept and methodology, as it is argued the researchers own values and beliefs play a pivotal role in the entire research process (Mertens, 2010).

The terms philosophical concepts and paradigms are used interchangeably to describe 'world views'(Creswell, 2009; Mertens, 2010), and in the context of this research, the term paradigm will be used. Guba and Lincoln (2005) describe four basic tenets that help define a paradigm:

1. Axiology: the study of values and judgements and frames the ethical question;
2. Ontology: the study of the nature of being and frames questions relating to reality and truths;
3. Epistemology: the study of knowledge and frames questions relating to the creation of knowledge;
4. Methodology: prescribes the appropriate methods to be used to undertake the research and frames questions around how knowledge is obtained and understood (Braun & Clarke, 2013; Creswell, 2009; Mertens, 2010).

These terms will be explained in more detail when discussing the research paradigm that has been adopted to frame this study later in this chapter.

A sequential exploratory mixed methods approach consisting of two phases was used to answer the following question:

Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicidal ideations?

4.2 Mixed methods research (MMR)

According to Tashakkori and Creswell (2007), in MMR "the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry" (Tashakkori & Creswell, 2007).

Hesse-Biber (2010), asserts the principles of MMR are not a new concept with studies exploring social research employing qualitative and quantitative data methods such as demographic analysis, participant observation and surveys, dating back to the mid-1800s (Hesse-Biber, 2010).

Teddlie and Tashakkori (2009) describe MMR as the “third research community”, inferring that there is a relationship between quantitative, qualitative and mixed methods approaches as opposed to these being a separate entities in research methods (Teddlie & Tashakkori, 2009). Further supporting the rigor of MMR, researchers argue that MMR approaches increase research reliability and validity through triangulation, a process where data are obtained through two or more sources, in this case, qualitative and quantitative methods. As multiple methods are used, the risk of bias inherent to different methods is reduced, thus strengthening validity (Creswell, 2009; Green, 1989; Mertens, 2010; Moran-Ellis et al., 2006).

Qualitative research is described by Crotty (1998), as an appropriate method to explore and interpret the participant’s lived experience. Qualitative researchers use language to engage and seek meaning. Open-ended questions are a common tool used in QR, as opposed to closed-ended questions, as they allow the participant to share their experiences, attitudes and beliefs about a phenomenon. Qualitative researchers immerse themselves figuratively or literally in the context of the participant to interpret and give meaning to what they discover (Creswell, 2009).

The focus of qualitative research is the generation of knowledge through language, stories and life experience. Creswell (2009), describes qualitative research as a process where questions evolve and are brought to the researcher’s attention as part of the research process, a term he refers to as “emerging questions” (Creswell, 2009). In addition, the National Health and Medical Research Council describe QR as a “disciplined inquiry” not only exploring the lives of people through their personal stories,

experiences and behaviours, but also individuals and group performance within organisations (National Health and Medical Research Council, 2007 (Updated 2018).

Qualitative data collection is primarily contextual (collected within the participant's setting) with the most common form of primary qualitative data collection through face to face interviews, however focus group discussions, surveys and participant observation are methods also used to generate data. A common method used to analyse qualitative data is pattern recognition, which is the premise of Thematic Analysis (TA) (Braun & Clarke, 2013; Liamputtong, 2010; Saldaña, 2010).

Qualitative methods provided the paramedic participants with an opportunity to tell their stories through narrative in phase one of the study and additionally the foundation for the survey questions in phase two. Quantitative research methods as described by Liamputtong (2010), uses numbers in a structured, objective way to prove or disprove theory (Liamputtong, 2010) and the addition of this research method in phase two further complimented the MMR by providing a lens to interrogate the data further and investigate the variables that may influence confidence and attitudes of paramedics when assessing and managing patients with mental illness.

Creswell (2009), proposes four factors that must be considered when planning MMR:

Timing

Refers to the data collection and analysis phase, whether this will occur sequentially or concurrently. Sequential methods suggest that data may be collected and analysed at different times, whereas concurrent data collection proposes that both qualitative and quantitative data are collected at the same time. Creswell (2009) suggests the intent of the research will determine the order in which qualitative and quantitative data are collected (Creswell, 2009).

Sequential and concurrent methods can be further described as explanatory or exploratory. Explanatory strategies provide the researcher with an avenue to further explore and explain the quantitative results by incorporating follow up qualitative data collection and analysis results in the research findings. Exploratory strategies are used by the researcher to build on the results of the first qualitative phase by incorporating quantitative data collection and analysis in the second phase. Quantitative findings are used to assist in the interpretation of qualitative findings (Creswell, 2009).

A sequential exploratory MMR approach was adopted in this research.

Weighting

Refers to the priority given to either qualitative or quantitative research within a study. As identified earlier, this is dependent on the research intent (Creswell, 2009). This research is heavily weighted towards qualitative methods as it is designed to explore the construction of contextual meaning through language. The context is the out of hospital setting in which paramedics work and as previously mentioned, to explore the paramedic's lived experience of assisting patients with mental illness.

Mixing

Refers to the different phases both qualitative and quantitative data are mixed. This could occur at data collection, data analysis or a combination of both (Creswell, 2009). In phase one of the study, face to face interviews were conducted with Ambulance Tasmania (AT) paramedics (P) and intensive care paramedics (ICP) which resulted in the following primary themes:

- Stigma within paramedic culture;
- What informs confidence and competence when assessing patients with mental illness compared with patients presenting with chest pain;
- Education and training in mental health care;
- Legal and ethical issues pertaining to mental health care.

These themes then informed the generation of Likert scale questions used in phase two of the study. The use of open-ended questions in phase two also provided the participants an avenue to expand on their Likert scale answers and the researcher to collect richer data.

Theorizing

Refers to the theoretical framework/paradigm that guides the research, which is determined by the research question. This suggests the overall framework could align more with a quantitative viewpoint such as the positivist paradigm or from a qualitative view point as seen in the constructivist paradigm (Creswell, 2009). As previously mentioned, this research was conducted using a sequential exploratory mixed methods design, however Mackenzie & Knipe (2006), argue that whilst research can employ both qualitative and quantitative methods, researchers usually will align to one theoretical framework underpinning their study (Mackenzie & Knipe, 2006). The author has aligned with the constructivist paradigm to frame this study as it is the most appropriate approach to answer the research question.

The constructivist paradigm is believed to have evolved from work undertaken by philosophers such as Husserl and Dilthey in their studies of 'interpretive understanding', also known as hermeneutics. According to Mertens (2010), the philosophical framework of hermeneutics was used by historians to interpret meaning of historical documents and understand what the author of these documents was trying to communicate. The constructivist researcher approaches the meaning of hermeneutics more broadly seeing that it is a way to "interpret the meaning of something from a certain standpoint or situation" (Mertens, 2010).

Martens (2010), stated the central tenet of the constructivist paradigm is:

> "knowledge is socially constructed by the people active in the

> research process, and that the researchers should attempt to understand the complex world of the lived experience from the point of view of those who live it" (Mertens, 2010).

The author will now align the constructivist approach to the four tenets described by Guba and Lincoln (2005) that help define a paradigm.

Axiology: in Australia, it is expected that constructivist researchers abide by the principles of the *National Health and Medical Research Council Act 1992.* This Act prescribes the legal framework to conduct ethical human research which is endorsed by the National Health and Medical Research Council (NHMRC), the Australian Research Council and the Australian Vice-Chancellors' Committee (National Health and Medical Research Council, 2007 (Updated 2018). This research was conducted in a way to adhere to the requirements prescribed by the NHMRC. This will be discussed in detail later in this chapter.

Ontology: constructivist researchers argue that there is more than one truth or reality and people search for meaning in the world in which they live. Reality is constructed through social interaction and lived experience, and guided by cultural and social norms (Creswell, 2009). The lived experience of the paramedic is constructed through their interaction with the patient, as well as the organisational policies and procedures under which they practice.

Epistemology: constructivist researchers argue that a number of influences impact the knowledge creation. What we know, what we learn and how we behave is seen to be contextual and informed by social and cultural norms, gender, personal experiences and attitudes as well as individual personality traits (Braun & Clarke, 2013). In this context, the paramedic's life experience is seen to be influential in developing learnt behaviours which may impact their attitudes and beliefs in the workplace.

Methodology: this research was undertaken to explore paramedics' experiences when assisting patients with mental illness. The constructivist paradigm provided the theoretical frame work for paramedics to tell their stories and describe their lived experience of providing care to patients with mental illness in the out of hospital setting.

4.3 Researcher/author

The constructivist paradigm postulates that the lived experience of the interviewer may also influence the research findings and emphasise the importance of interviewer self-awareness and reflection, a process known as 'reflexivity' (Braun & Clarke, 2013; Liamputtong, 2010).

My role in this research was to investigate how confident Ambulance Tasmania (AT) paramedics felt when called to assist patients with mental illness and suicidal ideation. Along with confidence levels, the paramedics' knowledge of mental illness and attitudes towards patients with mental illness were also explored.

My thirteen years' experience working with AT as a student paramedic, paramedic, intensive care paramedic and paramedic educator, informed my interest in this topic. With my own lived experiences of assisting patients with mental illness, I am aware that I may have developed my own preconceptions towards this patient group and I am cognisant of the fact that these have the potential to influence my research findings. Malterud (2001), acknowledges the researcher's role in the construction of knowledge and claims that "the illusion of denying the human touch is countered by establishing an agenda for assessment of subjectivity" (Malterud, 2001). Given this, it is important that I outline any preconceived notions that I have about providing care to patients with a mental illness in the out of hospital setting, as well as provide detail of my experiences in mental health.

As a student paramedic, I felt inadequately prepared to assess and manage patients with mental illness and relied heavily on the knowledge and experiences of my supervisors. As a qualified paramedic, I had developed experiential knowledge, however opportunities to undertake formal education and training in providing care to patients with mental illness were non-existent. Given this, I was not confident in my abilities to adequately assess and manage patients with mental illness in the out of hospital setting. I strongly believed that education and training in providing care to patients with mental illness was necessary to increase my own confidence levels, additionally however, this discipline of health care was seen to be less important than others when it came to staff professional development training.

My interest in paramedic education saw a move from AT to the University of Tasmania (UTAS) to deliver paramedic education at the undergraduate level. My interest in mental health care continued and I undertook training in suicide awareness and mental health courses and became accredited to deliver these. I played a pivotal role in embedding the Community Response to Eliminating Suicide (CORES) training program into the paramedic curriculum. CORES is a one-day suicide awareness training program that was delivered to first year Bachelor of Paramedic Practice (BPP) students. I was also instrumental in embedding the Mental Health First Aid (MHFA) course into the second-year paramedic curriculum. I developed and coordinated the first paramedic specific mental health unit at UTAS. The aim of this was to develop mental health literacy levels in BPP students, increase their confidence levels when required to assist patients with mental illness and improve patients' experiences and outcomes.

I have continued to develop mental health education and training for undergraduate paramedic students with successfully facilitating the embedding of MHFA into the first-year curriculum at the University of the Sunshine Coast (USC) where the program has

been mandated as a requirement for paramedic students to undertake their first clinical placement. Furthermore, the move to USC influenced the manner in which phase two of the study was conducted. As the participants were based in Tasmania, face to face interviews which were used in phase one, were difficult to conduct given the distance between myself and the potential participants, which resulted in an online survey tool used for data collection. A detailed description of data collection will be discussed further in this chapter.

4.4 Methods

The following will describe the methods used in phase one and phase two of the research.

4.4.1 Phase one: data collection

The purpose of phase one was to gain information on the perspectives, understandings and meanings constructed by Ambulance Tasmania (AT) paramedics regarding their lived experiences when called to assist patients with mental illness. To enable this, face to face interviews employing a semi-structured model were conducted. Semi-structured interview methods are commonly used in health-care related qualitative research. The face to face approach was chosen as it provided an opportunity for the interviewer and interviewee to develop a rapport potentially eliciting more information than other semi-structured approaches such as those conducted by telephone. It also provided an opportunity for the interviewer to observe non-verbal reactions as well, which could be used to further explore verbal responses and potentially produce richer data sets (Polgar & Thomas, 2008). Braun & Clarke (2013), argue the principles of semi-structured interviews follow that interview questions are developed by the researcher as a guide to frame the interview, however strict adherence to interview structure is not applied. The order in which questions are asked are determined by the responses of the participants, as other questions may emerge from the interview

dialogue which may change the direction of the interview structure (Braun & Clarke, 2013).

The interview questions were adapted and broadly informed from a pre-test questionnaire that was used in the following study: Mental Health First Aid Training in a Workplace Setting: A randomized controlled trial. The study explored the mental health literacy of Canberra-based employees of two Australian government departments: Health and Ageing, and Family and Community Services, pre and post a 12 hour Mental Health First Aid Workshop (Kitchener & Jorm, 2004). The decision to use this mental health literacy survey to inform the development of the semi-structured interview questions was based around the use of vignettes that were developed as part of the survey study. This provided an opportunity to use this model of vignette type questions to explore participants' knowledge, skills, attitudes and confidence in assisting patients with mental illness. The vignette type questions were adapted to be more reflective of paramedic practice for example one of the questions asked was:

'You are sitting around the table at HQ. There are 3 crews, all skill levels are the same. Everyone's pager goes off at the same time. The other 2 crews have been dispatched to a motor vehicle crash on the highway. You and your partner have been dispatched to the local supermarket, the call has come in from a third-party member who is concerned for the welfare of a person who is looking confused and distressed in the car park. How do you feel about the case you have been called to? Do you wish that you were also attending the MVC as well, instead of the psychiatric case'?

The interview questions were developed from the author's personal experiences working as a paramedic with Ambulance Tasmania for 13 years. This approach was adopted as the research was undertaken to explore the paramedic's lived experience of assessing and managing patients with mental illness presentations, and it was considered reasonable to develop the questions from clinical practice and experience.

Data collection commenced in August 2013 and was completed in April 2014.

The design of the interview questions included closed demographic data and open-ended and case-based questions which explored the participant's perceptions of mental health care in the out of hospital setting. The last question pertained to gaining consent to share the de-identified data.

Table 1. displays the phase one closed, open-ended and case-based questions

Closed questions

Participant number and region employed	*Gender*	*Level of qualification*	*Years of employment*	*Additional qualifications in health care*

Open- ended and case-based questions

Could you please describe a case where you were called to patient with mental health problem? It may have been recent or sometime ago but was significant for you.
Your pager goes off and you read attempted suicide/psychosis. Compare this to being called to a case triaged as chest pain. Do you feel more comfortable/confident with either of these scenarios and why?
Do you think your education and training prepared you to adequately assess and mange patients presenting with various mental health disorders?
Research has shown there is stigma associated with mental illness, in particular from health care workers. Do you think there is stigma within the paramedic culture to mental illness?
What do you think underlies that reaction to "not another psych job" as opposed to other cases?
Do you find psychiatric cases challenging?
On average, what per cent of cases are triaged as psychiatric, or how many times do you think you are called per block to attend a patient triaged as psychiatric?
You are sitting around the table at HQ. There are 3 crews, all skill levels are the same. Everyone's pager goes off at the same time. The other 2 crews have been dispatched to a motor vehicle crash on the highway. You and your partner have been dispatched to the local supermarket, the call has come in from a third-party member who is concerned for the welfare of a person who is looking confused and distressed in the car park. How do you feel about the case you have been called to? Do you wish that you were also attending the MVC as well, instead of the psychiatric case?
What is your understanding of the mental health legislation?
How do you determine whether someone has capacity to refuse care?
Changes to the new mental health act will afford paramedics the authority to transport patients involuntary if they are at risk of harm to self or others. Police will not be required to authorise these transports in future. What impact on paramedic practice do you believe this will have?
What resources and supports are there in your region for patients who have mental health problems? What options do paramedics have in regard to transport destinations?
If you had the opportunity to have input into an education and training package for post employed paramedics regarding mental health care in the out of hospital setting, what criteria do you think would be essential to include?

Would you be interested in undertaking further education and training in mental health care in the out of hospital setting?
Are you happy for me to use any information you have shared today (keeping in mind it will be de-identified?

Three methods were used to record the interviews: a *Sony ICD-AX412F* MP3 voice recorder and *Olympus WS-811* digital voice recorder as well as a Livescribe™ Smart Pen (Echo®). The voice recorders were strategically placed to capture the best audio and also act as a 'back-up' in case one failed to record. The Livescribe™ Smart Pen (Echo®) has an audio and a note taker function which allowed the author to record the interview as well as take notes using the Livescribe™ custom notebook which uses specialised paper printed with microdots that are read by the tip of the pen. Using USB connectivity, the data was then transferred to a computer where the written and audio files were stored and readily available to the author.

4.4.1.1 Phase one: setting

The research was conducted in the following four sites in Tasmania Australia:

1. University of Tasmania (Hobart campus);
    a. Medical Precinct 1.
    b. Medical Precinct 2
2. Ambulance Tasmania Northern region;
3. Ambulance Tasmania North Western region;
4. Ambulance Tasmania Southern region.

A number of interviews conducted with participants from the Southern region were undertaken in the University of Tasmania medical science buildings or other places within the Southern region. All interviews conducted with participants from the Northern and North western regions were conducted within their regional areas.

4.4.1.2 Phase one: participants

In Tasmania, a paramedic is defined as a person who holds a Bachelor of Paramedic Science (BPS) qualification and relative work experience or equivalent and is

“responsible for the effective and appropriate application of patient care skills, in a time critical environment plus, the transport of patients by ambulance or other means” (Department of Health and Human Services, 2014a).

An intensive care paramedic is also required to hold a BPS qualification in conjunction with additional qualification and relative work experience or equivalent and is “responsible for the effective and appropriate application of patient care skills, including advanced life support, in a time critical environment plus the transport of patients by ambulance or other means” (Department of Health and Human Services, 2014a).

The Department of Health and Human Services (DHHS) report 2012-2013, stated 329 operational staff were employed with Ambulance Tasmania (AT) during this period. (Department of Health and Human Services, 2013). The term operational refers to areas within DHHS which deliver services to the public. Moreover, with regard to AT, this would also include communications officers and emergency medical dispatch officers who are not qualified paramedics. The number of qualified paramedics who met the criteria for participation was 300.

The report does not detail the regional distribution of operational staff.

A total of 14% (n=42) of AT qualified paramedics participated in phase one.

Inclusion criteria:

- Currently employed with AT;
- Qualified paramedics.

Qualified paramedics were chosen to ensure they had adequate clinical exposure to the target patient group. Qualified paramedics have completed a minimum of three years of theoretical and clinical training, with ICPs completing a minimum of five years theoretical and clinical training. Whilst it is not possible to quantify the number of cases each individual paramedic has been exposed to, it is postulated that qualified

paramedics would have more exposure than student paramedics and volunteer ambulance officers.

Exclusion criteria:

- Student paramedics;
- Paramedics under the age of 18;
- Volunteer Ambulance Officers (VAOs).

Student paramedics were ineligible to participate given they were unlikely to have had extensive clinical exposure to the target group. This age restriction did not affect the research as it is a requirement that employees must be a minimum of 18 years old. VAOs were excluded as they do not undertake the same rigorous education and training as qualified paramedics and clinical exposure would be significantly lessened as it is determined by how often they volunteer their services to assist patients in their local communities.

4.4.1.3 Phase one: sampling

Convenience sampling was used to recruit the paramedic participants. This approach, while there are some limitations, which will be discussed in chapter 7, was chosen as it was deemed the most appropriate way of accessing the Tasmanian paramedic population. (Etikan, Musa, & Alkassim, 2016). The sampling strategy was designed to maximise representation of paramedics and therefore the "geographic variation" (Patton, 2002) across the three regions of Tasmania including the North, North West and South.

4.4.1.4 Phase one: recruitment

Ambulance Tasmania management were supportive for AT paramedic participation in this study.

Two approaches were used to maximise the recruitment process, which in the first instant, involved the administrative departments in the three AT regions. The author contacted each department by phone informing them of the research study and the process involved. After the initial phone conversation, the administrative staff disseminated an information flyer through email to all salaried ambulance stations where station officers were asked to display the flyer in the station office (attached as appendix 1). The second approach was the dissemination of an information sheet attachment to all qualified AT paramedics (attached as appendix 2).

The information sheet was sent out using the Department of Health and Human Services (DHHS) email account. Paramedics have access to computers in all ambulance stations in Tasmania and are required to access their work (DHHS) emails on a regular basis, as this is the method chosen for dissemination of all work-related information. The email and attached information sheet informed the paramedics of the interview process and when this would occur. Participants were asked to acknowledge their interest in participating through a reply email. A total of 42 paramedics responded to the email invitation. The author then contacted all volunteer participants by phone to answer any additional questions as well as to make arrangements to meet and complete the interview process. All 42 paramedics agreed to participate in the interview.

The interviews were conducted at a place of choosing by the participant which for the majority was the workplace or University of Tasmania (Hobart campus) Medical Precinct 1 or Medical Precinct 2. Other venues included cafes with one participant opting to be interviewed at home. The interviews were conducted by Lisa Clegg, the author of the thesis. The time allocated for each interview was 30 minutes, however a more realistic time frame was between 20-40 minutes and this was dependent on different experiences of the participants.

The participants were asked to complete and sign a consent to participate form (attached as appendix 3) prior to the interview. In addition, the participants were advised that there would be no risk of harm to them by enrolling in this research project, however measures were taken to provide support and care to any participant who may have experienced discomfort. If required, this was provided through Dr Christine Clifford, a clinical psychologist and one of the researchers involved in the study. The participants were also informed that if at any time they felt uncomfortable about answering any of the questions posed, they may freely choose not to answer. Furthermore, the participants were advised they may withdraw from the research project at any time and if they chose to do so, they would not be disadvantaged in any way. No participant withdrew from the study or required support from Dr Christine Clifford.

4.4.1.5 Phase one: data analysis

Accurate representation of participants' experiences is fundamental to qualitative data analysis (Speziale & Carpenter, 2011). To ensure the robustness of the data analysis process, recorded interviews were transcribed verbatim ensuring all spoken words and other sounds were recorded. The aim of this form of data transcription is to create a data set that is truly representative of the interviews undertaken (Braun & Clarke, 2013). The data transcription was undertaken by the author and interviewer.

Thematic analysis was used to analyse the data in phase one. This approach to qualitative data analysis involves the identification and reporting of themes that emerge within the data and according to Ryan & Bernard (2003), thematic identification is one of the foundational tenets of qualitative research (Ryan & Bernard, 2003).

To increase data analysis rigor, the author adopted two analytical approaches in phase one of the study: 1) manual analysis, and 2) electronic analysis.

Manual data analysis:

Transcribed text was read and re-read with words and quotes the participants used and expressions and experiences they referred to identified as codes; a process known as In Vivo Coding (Saldaña, 2010). Using a count-based analysis method, the transcribed text was then cut and sorted into piles of similar codes which then informed the primary themes. An example of this is included as appendix 9.

Electronic data analysis:

Electronic data analysis encompasses the use of Computer-Assisted Qualitative Data Analysis Software (CAQDAS) to assist with the data analysis process through storage and retrieval functions that improve data analysis management. CAQDAS however, is not designed to 'do the data analysis' as such and comparable with manual data analysis, the researcher is still required to interpret the data and identify patterns and themes (Bringer, Johnston, & Brackenridge, 2004; Flick, 2014).

Transcribed text was uploaded to CAQDAS Qualitative Research Solutions International (QSR) NVivo 11 Pro. Text Search and Word Frequency functions were used to code the data into nodes which were identified from the participant responses. There were minimal differences to the themes that emerged from the two different analysis techniques. The primary themes that were captured are shown in Table 2.

Table 2. displays the phase one primary themes

Theme 1.	Education and training for paramedics in mental health care: what we have and what we need
Theme 2.	Confidence and competence in providing care to patients with mental illness compared to cardiac presentations: paramedic perspective
Theme 3.	Stigma within paramedic culture
Theme 4.	Legal and ethical issues pertaining to mental health care: paramedic perspective
Theme 5.	Mental health care: is it as challenging and rewarding as trauma?

These primary themes as well as sub-themes will be discussed in detail in the results section.

4.4.1.6 Phase one: quality control measures

A small pilot study was undertaken in mid-December 2012 to test the validity of the interview process. The process included a one on one interview with volunteers from the Bachelor of Paramedic Practice (BPP) at the University of Tasmania.

The thirty-minute interviews were followed by a forty-five-minute focus group discussion with all volunteers which took place one week later. Participation was open to students who were currently enrolled in the BPP and completing their final semester of study. All eligible students were contacted through their University of Tasmania student email account inviting them to participate in the pilot study. A number of students replied indicating their interest and the first four students who sent in their reply were recruited.

The participants were given a copy of the information sheet (attached as appendix 2) and then asked to sign the consent form (attached as appendix 3).

The interviews and focus group meetings were conducted in the University of Tasmania School of Medicine, Medical Science Precinct 2 building. At the time, the current final year BPP cohort included students undertaking their degree as post-employed paramedic students with AT and pre-employed students yet to have secured ambulance employment. Two participants were recruited from the post employed cohort whilst the other two were recruited from the pre-employed cohort. All participants however, had some degree of clinical experience with the post-employed participants being employed with AT for three years, whilst the pre-employed participants had been working as VAOs with AT for at least twelve months. Three participants were from Hobart (Southern region) area and one participant was from Launceston (Northern region).

The interviews were recorded using a *Sony ICD-AX412F* MP3 voice recorder and a Livescribe™ Smart Pen (Echo®). A semi-structured interview approach was used consisting of the same questions the research participants would be asked as referred to previously.

The participants fed back that the interview and focus group experience was both positive and rewarding. All participants found the opportunity to partake in research into mental health care integral in fostering positive change to paramedic management of patients with mental illness. As a result of the pilot study feedback, no additional changes were made to the interview questions. Despite undertaking this pilot study, an 'expert panel' should have been consulted instead of students to ensure that the participants of the pilot study had extensive clinical exposure and replicated the characteristics of the main sample group. This will be discussed further in the limitations.

4.4.1.7 Phase one: ethics

The research undertaken in phase one was conducted in accordance with the guidelines detailed in the National Statement on Ethical Conduct in Human Research 2007(Updated 2018) (National Health and Medical Research Council, 2007 (Updated 2018).

Ethics approval for phase one of this research was granted through the Tasmanian Health and Medical Human Research Ethics Committee in March 2013. The Tasmanian Health and Medical Human Research Ethics Committee is registered with the National Health and Medical Research Council (NHMRC). Ethics reference number is H0012899 (appendix 1).

Copies of participant information sheet and consent form are included (appendices 2,3).

4.4.2 Phase two: data collection

The purpose of phase two was to further explore AT paramedics' lived experiences of assisting patients with mental illness, which additionally included an exploration of the paramedics' understanding of the Tasmanian *Mental Health Act 2013.* In phase one, the results showed paramedics had a poor understanding of their legal responsibilities when called to assist patients with mental illness. Phase one was conducted prior to the change in Tasmanian mental health legislation in 2014, and under the legislation at the time, *Mental Health Act 1996,* paramedics were not authorised to take patients into protective custody for further assessment and management. AT paramedics were given the title of Mental Health Officers (MHO) under the *Mental Health Act 2013*, and as MHOs, were authorised to take a person into protective custody if certain criteria were met.

AT conducted a one-day training session which provided paramedics with information regarding the new legislation and their responsibilities as a MHO. This meant that phase two datum could also capture information regarding paramedics understanding and use of the new legislation post the training session.

Phase two data was collected through an online survey which included Likert scale and open-ended questions. Additionally, the survey questions for phase two were generated from the results reported in phase one, a process widely utilised in sequential exploratory mixed methods. As proposed by Yauch & Steudel (2003), utilising this method of generating questions in MMR, allows for increased validity and interpretation of results (Yauch & Steudel, 2003).

The online tool LimeSurvey, was used to disseminate the 64-item survey to participants which required 45 minutes to complete. The open-ended questions provided the participants with an opportunity to expand on their Likert scale question responses, a method used to enable richer data sets.

Table 3. displays the questions associated with the phase one primary themes. This illustrates the link between phase one and phase two questions.

Primary theme and survey questions
Education and training for paramedics in mental health care: what we have and what we need. Q 13. When did you last attend a mental health education and training session? Response format *1. Never, 2. in the past 6 months, 3. In the past 12 months, 4. In the past 2 years, 5. Greater than 2 years.* Q 23. Education and training in mental health care has helped me develop confidence in patient assessment and management. Response format *1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.* Q 24. Education and training in mental health care has helped me develop positive attitudes towards patients with mental illness. Response format *1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.* Q 25. Education and training in mental health care has helped me to alleviate a fear of violence linked to patients with mental illness. Response format *1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.* Q 39. In your experience is there a link between increased risk of violence from patients with mental illness and poor communication skills from paramedics? Response format *1. Often, 2. Sometimes, 3. Rarely, 4. Never.* Q 50. What is your understanding of the term 'mental illness' referred to in question forty-eight? Q 61. Do you feel confident in your abilities to use sedation as a means of managing an agitated patient? Response format *1. Yes, 2. No, 3. Unsure.*
Confidence and competence in providing care to patients with mental illness compared to cardiac presentations: paramedic perspective. Q 14. 'I feel very confident when attending a patient presenting with a mental health crisis'. Response format *1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.* Q 16. 'I feel anxious when attending a patient presenting with a mental health crisis'. Response format *1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.* Q 18. 'I feel frustrated when attending a patient presenting with a mental health crisis'. Response format *1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.*

Q 20. ‘I am fearful when attending a patient presenting with a mental health crisis’.

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 22. Are there other feelings you have when you are called to attend a patient with a mental health crisis, which have not been included in the last four questions? Please list and explain.

Q 23. Education and training in mental health care has helped me develop confidence in patient assessment and management.

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 25. Education and training in mental health care has helped me to alleviate a fear of violence linked to patients with mental illness.

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 27. In your experience is it the case that patients with a diagnosed mental illness are more likely to become violent than patients who do not have a mental illness?

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 29. Have you felt threatened when attending to a patient with mental illness?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 31 How often would you feel threatened attending to a patient who does not have a mental illness?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 33. How often have you been verbally or physically abused by a patient with mental illness?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 35. How often have you been verbally or physically abused by a patient without mental illness?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 41. When attending to a patient presenting with a mental health crisis, who would you prefer to be crewed with?

Response format

1. Recently graduated paramedic, 2. Experienced paramedic, 3. Volunteer, 4. Working alone, 5. Neutral, 6. Other

Q 46. Paramedic culture is about identifying a problem and fixing the problem. Do you agree that some of the frustrations felt about patients with mental illness are due to the fact that ‘paramedics cannot fix the problem’?

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 55. Is it your opinion that in the past two and a half years since the change in mental health legislation, there been a change in paramedic attitudes towards patients with mental illness?

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 57. In your opinion does the Mental Health CPGA0709 provide enough guidance for paramedics to adequately assess and manage a patient with mental illness?

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 59. In your opinion does the Agitated Patient CPGA0708 provide enough guidance in paramedic decision-making to sedate patients?

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 61. Do you feel confident in your abilities to use sedation as a means of managing an agitated patient?

Response format

1. Yes, 2. No, 3. Unsure.

Stigma within paramedic culture.

Q 16. 'I feel anxious when attending a patient presenting with a mental health crisis'.

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 18. 'I feel frustrated when attending a patient presenting with a mental health crisis'.

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 20. 'I am fearful when attending a patient presenting with a mental health crisis'.

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 22. Are there other feelings you have when you are called to attend a patient with a mental health crisis, which have not been included in the last four questions? Please list and explain.

Q 24. Education and training in mental health care has helped me develop positive attitudes towards patients with mental illness.

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 25. Education and training in mental health care has helped me to alleviate a fear of violence linked to patients with mental illness.

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 27. In your experience is it the case that patients with a diagnosed mental illness are more likely to become violent than patients who do not have a mental illness?

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 29. Have you felt threatened when attending to a patient with mental illness?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 31 How often would you feel threatened attending to a patient who does not have a mental illness?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 33. How often have you been verbally or physically abused by a patient with mental illness?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 35. How often have you been verbally or physically abused by a patient without mental illness?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 37. In your experience is there a link between increased risk of violence from patients with mental illness and paramedic attitudes to psychiatric cases?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 39. In your experience is there a link between increased risk of violence from patients with mental illness and poor communication skills from paramedics?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 43. Research has found health care workers, including paramedics, stigmatise patients with mental illness. In your experience is this in your workplace?

Response format

1. Always, 2. Often, 3. Sometimes, 4. Rarely, 5. Never.

Q 44. In regard to question forty-three, how is this stigma demonstrated?

Q 46. Paramedic culture is about identifying a problem and fixing the problem. Do you agree that some of the frustrations felt about patients with mental illness are due to the fact that 'paramedics cannot fix the problem'?

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Q 55. Is it your opinion that in the past two and a half years since the change in mental health legislation, there been a change in paramedic attitudes towards patients with mental illness?

Response format

1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

Table 4. displays the phase two survey questions

1. Did you participate in the original research interview?	*1. Yes* *2. No*
2. What is your gender?	*1. Female* *2. Male*
3. What is your age?	*1. <20*

	2. 21-30 3. 31-40 4. 41-50 5. >50
4. What is your highest ambulance qualification?	1. Paramedic 2. Intensive Care Paramedic
5. What region in Tasmania are you employed in?	1. North 2. North West 3. South
6. What type of area are you working in?	1. Urban 2. Rural
7. What is your current employment status?	1. Full time 2. Part time 3. Casual
8. In your work as a paramedic, do you find psychiatric cases challenging?	1. Always 2. Often 3. Sometimes 4. Rarely 5. Never
9. Please provide further information regarding your answer to question eight.	
10. In your work as a paramedic, do you find mental health cases rewarding?	1. Always 2. Often 3. Sometimes 4. Rarely 5. Never
11. Please provide further information regarding your answer to question ten.	
12. On an average block of shifts how many times would you be called to assist a patient with mental illness?	1. None 2. 1-4 3. 5 4. 6-10 5. greater than 10
13. When did you last attend a mental health education and training session?	1. Never 2. In the past 6 months 3. In the past 12 months 4. In the past 2 years 5. Greater than 2 years
14. 'I feel very confident when attending a patient presenting with a mental health crisis'	1. Strongly agree 2. Agree 3. Undecided 4. Disagree 5. Strongly disagree
15. In regard to question fourteen, please provide further information explaining why you feel this way:	
16. 'I feel anxious when attending a patient presenting with a mental health crisis'	1. Strongly agree 2. Agree 3. Undecided 4. Disagree 5. Strongly disagree
17. In regard to question sixteen, please provide further information regarding the answer you provided.	
18. 'I feel frustrated when attending a patient presenting with a mental health crisis'	1. Strongly agree 2. Agree 3. Undecided 4. Disagree 5. Strongly disagree

19. *In regard to question eighteen, please provide further information regarding the answer you provided.*	
20. *'I am fearful when attending a patient presenting with a mental health crisis'*	1. *Strongly agree* 2. *Agree* 3. *Undecided* 4. *Disagree* 5. *Strongly disagree*
21. *In regard to question twenty, please provide further information regarding the answer you provided.*	
22. *Are there other feelings you have when you are called to attend a patient with a mental health crisis, which have not been included in the last four questions? Please list and explain.*	
23. *Education and training in mental health care has helped me develop confidence in patient assessment and management.*	1. *Strongly agree* 2. *Agree* 3. *Undecided* 4. *Disagree* 5. *Strongly disagree*
24. *Education and training in mental health care has helped me develop positive attitudes towards patients with mental illness.*	1. *Strongly agree* 2. *Agree* 3. *Undecided* 4. *Disagree* 5. *Strongly disagree*
25. *Education and training in mental health care has helped me to alleviate a fear of violence linked to patients with mental illness.*	1. *Strongly agree* 2. *Agree* 3. *Undecided* 4. *Disagree* 5. *Strongly disagree*
26. *Are there other feelings you have when you are called to attend a patient with a mental health crisis, which have not been included in the last three questions? Please list and explain.*	
27. *In your experience is it the case that patients with a diagnosed mental illness are more likely to become violent than patients who do not have a mental illness?*	1. *Strongly agree* 2. *Agree* 3. *Undecided* 4. *Disagree* 5. *Strongly disagree*
28. *Please provide further information regarding the answer you provided to question twenty-seven*	
29. *Have you felt threatened when attending to a patient with mental illness?*	1. *Always* 2. *Often* 3. *Sometimes* 4. *Rarely* 5. *Never*
30. *Please provide further information regarding the answer you provided to question twenty-nine.*	
31. *How often would you feel threatened attending to a patient who does not have a mental illness?*	1. *Always* 2. *Often* 3. *Sometimes* 4. *Rarely* 5. *Never*
32. *Please provide further information regarding the answer you provided to question thirty-one?*	
33. *How often have you been verbally or physically abused by a patient with mental illness?*	1. *Always* 2. *Often* 3. *Sometimes* 4. *Rarely* 5. *Never*
34. *Please provide further information regarding the answer you provided to question thirty-three*	

35. *How often have you been verbally or physically abused by a patient without mental illness?*	1. *Always* 2. *Often* 3. *Sometimes* 4. *Rarely* 5. *Never*
36. *Please provide further information regarding the answer you provided for question thirty-five*	
37. *In your experience is there a link between increased risk of violence from patients with mental illness and paramedic attitudes to psychiatric cases?*	1. *Always* 2. *Often* 3. *Sometimes* 4. *Rarely* 5. *Never*
38. *Please provide further information regarding the answer you provided to question thirty-seven.*	
39. *In your experience is there a link between increased risk of violence from patients with mental illness and poor communication skills from paramedics?*	1. *Always* 2. *Often* 3. *Sometimes* 4. *Rarely* 5. *Never*
40. *Please provide further information regarding the answer you provided in question thirty-nine*	
41. *When attending to a patient presenting with a mental health crisis, who would you prefer to be crewed with?*	1. *Recently graduated paramedic* 2. *Experienced paramedic* 3. *Volunteer* 4. *Working alone* 5. *Neutral* 6. *Other*
42. *Please provide further information regarding the answer you provided for question forty-one*	
43. *Research has found health care workers, including paramedics, stigmatise patients with mental illness. In your experience is this in your workplace?*	1. *Always* 2. *Often* 3. *Sometimes* 4. *Rarely* 5. *Never*
44. *In regard to question forty-three, how is this stigma demonstrated?*	1. *Non-verbal actions (eye rolling)* 2. *Verbal denouncement* 3. *Use of derogatory terms* 4. *Unsure* 5. *There is no stigma*
45. *Please provide further information regarding the answer you provided for question forty-four*	
46. *Paramedic culture is about identifying a problem and fixing the problem. Do you agree that some of the frustrations felt about patients with mental illness are due to the fact that 'paramedics cannot fix the problem'?*	1. *Strongly agree* 2. *Agree* 3. *Undecided* 4. *Disagree* 5. *Strongly disagree*
47. *Please provide further information regarding the answer you provided for question forty-six.*	
48. *Section 17 of the Mental Health Act 2013 states "a MHO (including paramedics) or police officer may take a person into protective custody if the MHO or police officer reasonably believes that the person has a mental illness" and requires further assessment and is deemed to be a risk to self or others. Are you confident you have the knowledge and skills to take a patient into protective custody based on the requirements above?*	1. *Yes* 2. *No* 3. *Unsure*
49. *Please provide further information regarding your response to question forty-eight.*	
50. *What is your understanding of the term 'mental illness' referred to in question forty-eight?*	
51. *As an authorised MHO, in your experience have?*	1. *Always* 2. *Often* 3. *Sometimes* 4. *Rarely*

	5. *Never*
52. *Please provide further information regarding your response to question fifty-one.*	
53. *Section 25 of the Mental Health Act 2013 states a person must be considered to not have "decision-making capacity" when taken into protective custody. Whilst paramedics are not required to determine whether a patient has the capacity to refuse care and transport under the Mental Health Act 2013, there are other situations where a patient will refuse care. In your opinion do paramedics have the skills to determine a patient's capacity to refuse care?*	1. *Always* 2. *Often* 3. *Sometimes* 4. *Rarely* 5. *Never*
54. *Please provide further information regarding your response to question fifty-three.*	
55. *Is it your opinion that in the past two and a half years since the change in mental health legislation, there been a change in paramedic attitudes towards patients with mental illness?*	1. *Strongly agree* 2. *Agree* 3. *Undecided* 4. *Disagree* 5. *Strongly disagree*
56. *Please provide further information regarding your response to question fifty-five.*	
57. *In your opinion does the Mental Health CPGA0709 provide enough guidance for paramedics to adequately assess and manage a patient with mental illness?*	1. *Strongly agree* 2. *Agree* 3. *Undecided* 4. *Disagree* 5. *Strongly disagree*
58. *Please provide further information regarding your response to question fifty-seven.*	
59. *In your opinion does the Agitated Patient CPGA0708 provide enough guidance in paramedic decision-making to sedate patients?*	1. *Strongly agree* 2. *Agree* 3. *Undecided* 4. *Disagree* 5. *Strongly disagree*
60. *Please provide further information regarding your response to question fifty-nine.*	
61. *Do you feel confident in your abilities to use sedation as a means of managing an agitated patient?*	1. *Yes* 2. *No* 3. *Unsure*
62. *Have you been required to transport a patient for further assessment without their consent?*	1. *Yes* 2. *No*
63. *In regard to question sixty-two, what challenges did you face as a MHO authorised to take a person into protective custody?*	
64. *Working with a patient with mental illness is a complex issue. Is there anything else you would like to add that was not included in the survey?*	

4.4.2.1 Phase two: setting

Phase two of the research was conducted online. There were a number of factors that contributed to choosing this method of data collection compared with the semi-structured interview model that was adopted in phase one. The author had moved interstate and accessing the participants for face to face interviews was not possible due to travel requirements and the additional costs involved with this. Additionally,

using the online survey meant that deployment and return times were relatively quick allowing for data analysis to be completed within a short time frame. As this study was also open to all qualified paramedics employed with Ambulance Tasmania, the online survey could easily be disseminated to all paramedics as well. This approach also meant that the participants could complete the survey at a time and place that was suitable for them.

4.4.2.2 Phase two: participants

The Department of Health and Human Services (DHHS) report 2016-2017, stated there were 304 paramedics and intensive care paramedics employed with Ambulance Tasmania (AT) (Department of Health and Human Services, 2017a). As with previous reports (2012-2013), this did not detail the regional distribution of operational staff.

A total of 11% (n=33) of AT qualified paramedics participated in phase two of the research, however only 9% (n=28) of participants attempted the survey.

The inclusion and exclusion criteria for phase two replicated those for phase one.

Inclusion criteria

- Currently employed with AT,
- Qualified paramedics,

Exclusion criteria

- Student paramedics,
- Paramedics under the age of 18,
- Volunteer Ambulance Officers (VAOs).

4.4.2.3 Phase two: sampling

Due to the nature of the research undertaken, convenience sampling measures were once again used to recruit the participants. As previously discussed, it was the most appropriate way to access the Tasmanian paramedic population. In phase two, participation was once again voluntary and open to qualified AT paramedics only.

4.4.2.4 Phase two: recruitment

As with phase one, the participants who volunteered were from all three regions within AT: Northern; North Western and Southern. Qualified AT paramedics were contacted through their DHHS email address, inviting them to participate in the study. A total of three emails were sent out through AT administration. The first email was sent out on the 18th May 2017. The author and the AT research committee agreed that follow up emails reminding paramedics about the study would be sent fortnightly over a six-week period. These were sent out two and four weeks respectively from the original email. Consent for the research was assumed through participating in the online survey.

As with phase one, participants were informed they would not risk harm by enrolling in the study and were advised that if at any time they felt uncomfortable about answering any of the questions posed, they may freely choose not to answer. The participants were also advised they may withdraw from the research project at any time and they would not be disadvantaged in any way if they did so.

The participants were provided with an information sheet (attached as appendix 6) which clearly stated that participation was voluntary, and all information was de-identified, with confidentiality guaranteed.

4.4.2.5 Phase two: data analysis

The software used to analyse the quantitative data in phase two was Statistical Program for Social Sciences (SPSS) version 20. The chi square test was applied to determine differences in categorical data, Fischers' exact test is reported where cell frequencies fall below 5 in 20% of the cells. Only the p value will be reported where Fischers' exact test has been applied. Means and standard deviations, numbers and percentages are reported for other descriptive data.

Due to the small number of responses, the five categories on the Likert scales of strongly agree, agree, undecided, disagree, strongly disagree were collapsed into three categories of agree-strongly agree, undecided, and disagree–strongly disagree.

In phase two, the qualitative data were analysed manually and electronically using the same principles as in phase one. Transcribed text was read and re-read with emerging themes highlighted. Themes were identified through words and quotes the participants used when expanding further on their Likert scale question responses.

The manual and electronic data analysis produced the same following themes:

Table 5. displays the phase two primary themes

Theme 1.	Lived experience of providing mental health care from a paramedic perspective
Theme 2.	Stigma towards patients with mental illness embedded in paramedic culture
Theme 3.	Understanding the legal and ethical issues pertaining to mental health care: post workshop

These themes and sub-themes will be discussed in detail in the results and discussion chapters.

4.4.2.6 Phase two: quality control measures

There were a number of mitigating factors that resulted in the survey not being pre-tested. These factors will be discussed in detail in the limitations section, however it is acknowledged that this could have been a contributing factor to the low response rate.

The survey however was extensively evaluated by the Ambulance Tasmania Research Committee prior to dissemination.

4.4.2.7 Phase two: ethics

In phase two, a separate ethics application was required. It was always intended that phase two of the study would also explore Ambulance Tasmania paramedics' knowledge, understanding and confidence in practicing within the framework of the *2013 Mental Health Act.* To be able to do this, an additional research aim was included to explore participants' knowledge and experiences of the *2013 Mental Health Act* pre and post a one-day training session delivered by Ambulance Tasmania. To be able to do this, the Tasmanian Health and Medical Ethics committee required a separate ethics application to be completed. Additionally, phase two of the study was also open to all qualified AT paramedics, not just the 42 participants from phase one which also required a separate application from phase one.

Ethics approval for phase two was granted through the Tasmanian Health and Medical Ethics Committee on the 14th December 2016. Ethics reference number is Human Research H0016135 (appendix 4).

Phase two was also endorsed by the Director of Medical Services and the CEO for Ambulance Tasmania and the newly appointed Ambulance Tasmania Research Committee. ATRC ethics reference number is: ATRC20160017 (appendix 5).

A copy of the participant information sheet is included as (appendix 6).

Chapter 4 Summary

In summary, chapter four has provided a detailed and honest account of the theoretical framework and techniques used to construct and undertake the study to answer the research question:

Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicidal ideations?

The constructivist paradigm was used to frame this study as it purports that the social construction of knowledge is expounded through lived experience. Given that the aim of this research was to explore the lived experience of paramedics when required to assist patients with mental illness presentations, the constructivist paradigm provided the appropriate context. The constructivist paradigm also acknowledges that the lived experience of the researcher may also influence outcomes and findings and asserts the importance of researcher self-awareness. As a previous employee with AT, I discussed my interest in undertaking research pertaining to care of patients with mental illness in the out of hospital setting. I detailed any preconceived notions that I had about care of patients with mental illness and provided a discussion of my experiences in providing this care.

Data collection and data analysis was undertaken using a sequential exploratory mixed methods approach. The study was conducted in two phases. Phase one encompassed a qualitative face to face semi-structured interview process where 42 qualified AT paramedics discussed their lived experiences working with patients with mental illness. Phase two consisted of an electronic survey incorporating both quantitative and qualitative questions that were generated from the responses in phase one, as well as exploring the paramedics' knowledge and experiences of enacting the *Mental Health Act 2013* pre and post a one-day training session.

In phase one and phase two, the data was analysed manually and electronically, with this approach adopted to ensure the robustness of the process and increase data analysis rigor.

Ethics approval for both phases of the study was granted by the Tasmanian Health and Medical Human Research Ethics Committee. Additionally, in phase two, ethics approval was also endorsed by the Director of Medical Services and the CEO for Ambulance Tasmania and the Ambulance Tasmania Research Committee.

The next chapter will present the findings from phase one and phase two of the study. The findings will be presented using the themes identified in this chapter

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Chapter 5 Results

The previous chapter presented the methodology that was adopted to answer the research question. This chapter will present the findings from phase one and phase two of the research.

5.1 Phase one: results

Forty-Two Ambulance Tasmanian (AT) paramedics participated in phase one of the research: (females n=21; males n=21), paramedics (P) (n=19) and intensive care paramedics (ICP) (n=23). The regional distribution of participants was: Northern region (n=12), North-Western region (n=15) and Southern region (n=15). This represented an overall response rate of 14% of the paramedic workforce.

Table 6. displays the phase one demographical participant data.

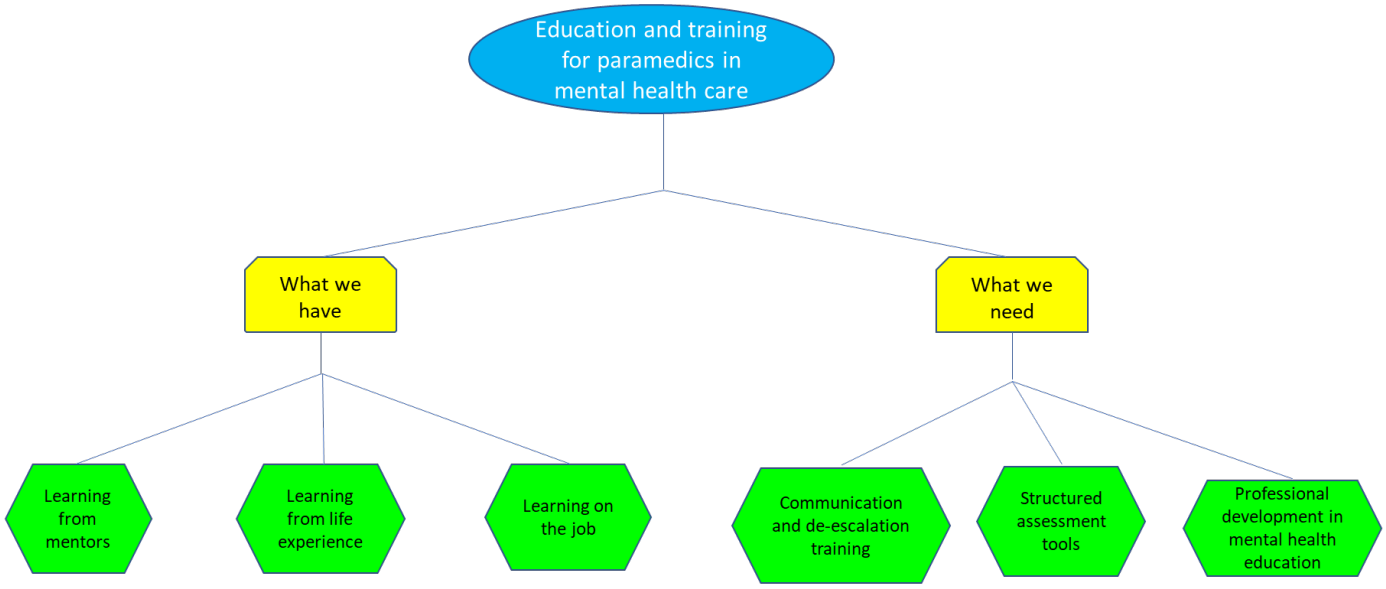
Participant number and region employed	*Sex*	*Level of qualification*	*Years of employment*	*Additional qualifications in health care*	*Participant number, sex and qualification*
Northern 1.	Male	ICP	8 years	Nursing	N 1 M ICP
Northern 2.	Female	ICP	14 years	Nursing	N 2 F ICP
Northern 3.	Male	ICP	32 years total (AT and NT)	No	N 3 M ICP
Northern 4.	Female	P	10 years	Dental Nurse	N 4 F P
Northern 5.	Male	ICP	40 years	No	N 5 M ICP
Northern 6.	Female	ICP	24 years	No	N 6 F ICP
Northern 7.	Female	ICP	18 years	No	N 7 F ICP
Northern 8.	Female	P	5 years	No	N 8 F P
Northern 9.	Female	P	2.5 years	Nursing	N 9 F P
Northern 10.	Male	P	7 years	No	N 10 M P
Northern 11.	Male	ICP	37.5 years	No	N 11 M ICP
Northern 12.	Male	P	8.5 years total (AT and WF)	No	N 12 M P
North Western 1.	Female	P	4 years	No	NW 1 F P
North Western 2.	Male	P	6 years	No	NW 2 M P
North Western 3.	Female	ICP	10 years	Nursing	NW 3 F ICP
North Western 4.	Female	ICP	9 years	Nursing	NW 4 F ICP
North Western 5.	Female	ICP	8 years	No	NW 5 F ICP
North Western 6.	Male	ICP	18 years total (AT and AV)	No	NW 6 M ICP
North Western 7.	Female	ICP	7.5 years	No	NW 7 F ICP
North Western 8.	Male	ICP	17 years (AT and AV)	No	NW 8 M ICP
North Western 9.	Female	P	13 years	No	NW 9 F P
North Western 10.	Male	ICP	6 years	Nursing	NW 10 M ICP
North Western 11.	Male	ICP	33 years	Nursing	NW 11 M ICP
North Western 12.	Female	P	16 months	No	NW 12 F P
North Western 13.	Male	P	6 months	Military Health Care	NW 13 M P
North Western 14.	Female	ICP	18 years	Nursing	NW 14 F ICP
North Western 15.	Male	ICP	33 years	No	NW 15 M ICP

Southern 1.	Male	ICP	30 years	No	S 1 M ICP
Southern 2.	Male	P	5.5 years	Royal Marine Medic	S 2 M P
Southern 3.	Female	P	5 months	No	S 3 F P
Southern 4.	Female	P	14 years total (AT and QAS)	Respiratory and lung technician	S 4 F P
Southern 5.	Male	P	8 years total (AT and QAS)	No	S 5 M P
Southern 6.	Female	ICP	9 years	No	S 6 F ICP
Southern 7.	Male	ICP	7 years	No	S 7 M ICP
Southern 8.	Female	P	11.5 years total (AT and QAS)	No	S 8 F P
Southern 9.	Female	ICP	7 years	No	S 9 F ICP
Southern 10.	Male	ICP	25 years total (AT and QAS)	No	S 10 M ICP
Southern 11.	Male	P	13.5 years total (AT and NT)	No	S 11 M P
Southern 12.	Female	P	3.8 years	No	S 12 F P
Southern 13.	Female	ICP	9.5 years	No	S 13 F ICP
Southern 14.	Male	P	3.5 years	No	S 14 M P
Southern 15.	Male	P	9 years	No	S 15 M P
Intensive Care Paramedic (ICP); Paramedic (P); Ambulance Tasmania (AT); Northern Territory (NT); Wellington Free (WT); Ambulance Victoria (AV); Queensland Ambulance service (QAS).					

5.1.1 Primary theme 1: Education and training for paramedics in mental health care

Figure 1 below, is a diagrammatical representation of the themes and sub-themes. The primary theme is ‘paramedic education and training in mental health care’. The first sub-theme is exploring what is currently available to the paramedic participants which includes learning from mentors, clinical exposure and life experiences. The second sub-theme represents what the paramedic participants see as essential in paramedic education and training in managing patients with mental illness presentations. The sub-themes of ‘what we have’ and ‘what we need’ provide an example of what will be included in the narrative. Additional sub-themes will also be described under these headings.

Figure 1.



The participants were asked to respond to a number of questions about education and training in providing care to patients with mental illness presentations. The questions included education and training they may have undertaken outside of Ambulance Tasmania (AT), professional development sessions with AT, other pedagogical approaches such as experiential learning as well as the value of any education and training in mental health care that has been undertaken. The participants were also asked to identify criteria that should be included in an education program developed specifically for paramedics in the assessment and management of patients with mental illness. A total of 83% (n=35) of participants responded to questions about their education and training in mental health care.

Do you think your education and training prepared you to adequately assess and manage patients presenting with various mental health disorders?

A total of 83% (n=29/35) of participants stated that mental health education was given a low priority compared with medical and trauma education. Additionally, the participants also stated that overall, the quality of the mental health education and training that was delivered was poor:

"I can go and attend cases like that but to thoroughly assess and understand and treat people probably not no" (N 1 M ICP).

"I think in my 3 years we didn't do much psych stuff until our third year and even then and even then I think it was only like 3 days maybe on mental health but by that token it was on mental health like this is the definition of border line personality disorder, this is the definition of bipolar, not this is how you deal with the patient having a crisis"

(N 8 F P).

"I don't think that the basic training that we get in ambulance is really adequate, um and unless you have a particular interest or unless there are courses available that people want to go on then I'd have to say that I don't personally think that the training we get is good enough to deal with a lot of the mental health issues" (NW 8 M ICP).

"Far more education in the tangible medical type work than there is in the psycho social cultural aspects of the patients we deal with" (S 10 M ICP).

In addition to this, 11% (n=4/35) of participants felt the education and training in mental health care they had received was adequate. Of interest, one participant based this on the level of assessment and care required by paramedics in managing patients with mental illness. The education and training in mental health care which had been undertaken prior to employment with AT was also a factor influencing adequate education and training response:

"I think our education is adequate for the short time we are with the patient…… for us not to know a full mental status assessment is quite fine I believe as long as we can pick up the signs and symptoms as to why they need to go to hospital…… it's probably adequate for what we do because it won't make much of a difference for your overall treatment for that person as long as they get to hospital and get a full psych assessment" (S 14 M P).

"To some degree yes, I think there's a lot that you can't really learn in the classroom though. Perhaps there could have been a bit more emphasis on treatment pathways rather than just taking them straight to the ED. Perhaps a little bit more information about what services you can use because I've found I've had to do a lot of research about that myself" (S 3 F P).

"It was actually in Victoria because Victorian ambulance in Victoria were the transporting authority and we would take patients who were recommended revoked treatment orders and we would go and crash tackle them and take them to hospital and

we had rights to restrain patients. So there was a fairly significant training, I did a week with a CAT team in Bendigo on road which was excellent training, but you know that was a really long time ago" (NW 6 M ICP).

"I think the nursing probably prepared me better because you had a significant amount of time on the acute wards or with the CAT team, but I think paramedics they definitely tried to prepare you for mental health cases. What you don't get taught is your scene management, never letting a patient get between you and a door, keep doors open, all of that kind of stuff that never got mentioned in any of our things"(NW M ICP).

5.1.1.1 Ambulance Tasmania initiated mental health education and training

Despite the fact that paramedic education and training in managing patients with mental illness was identified as an area that warranted regular education and training, 40% (n=14/35) of participants reported AT provided little education and training opportunities in managing patients with mental illness, or support for officers undertaking their own professional development:

"*I did see something on mental health first aid. You had to arrange it yourself and you had to pay for it yourself and I couldn't get released from shift, so I couldn't go".*
(N 11 M ICP).

"I've never done any PD, I always seem to go under the radar. It is an area that really needs a lot of work" (S 9 F ICP).

"Paramedics Australasia sponsored the mental health first aid program but there's been no focus in Ambulance Tasmania that's for sure. Not that I've done PD yet because my PD got cancelled, even in PD there's nothing on mental health at all, its manual handling and policies and a bit of stuff with some equipment but no mental health stuff" (NW 7 F ICP).

"Professional development in relation to mental health, I think it was like a one or two-hour session in one of the PDs about 6 years ago, apart from that no" (NW 9 F P).

"I have never practiced a mental health scenario ever" (S 13 F ICP).

"I feel quite comfortable but it's not anything AT has given me training in because I think it's an area extremely lacking in, personally"(NW 10 ICP).

5.1.1.2 Learning through experience and mentors

In addition, 29% (n=10/35) of participants reported experiential learning and working with a mentor provided more insight into managing patients with mental illness and was seen to play a significant role in developing specific on road skills in mental health care. Experiential learning was seen to be more aligned educationally with the on-road experiences, whilst education was seen to relate more to the classroom experience. On road training was seen to be of far greater value when learning skills in the management of patients with mental illness:

> *"I've had good mentors, one particular mentor that's like just really good with it, you know"* (NW 1 F P).
>
> *"Learning, watching different paramedics how they dealt with them I feel that helped definitely"* (S 2 M P).
>
> *"I guess you learn to pick up on whether a patient's going to be dangerous and that's probably again something you've probably learnt through experience"* (NW 2 M P).
>
> "I *don't think training was of much value really, it was more learning on the job, learning the procedures that we go through and learning to speak to these people and I think it's just experience really more than training"* (NW 2 M P).

5.1.1.3 Learning through life experience

Life experiences were seen to play a crucial role in providing care to patients with mental illness with 14% (n=5/35) of participants claiming that life experience alone was the catalyst to developing a structured clinical approach in assessment and management of patients with mental illness:

> "*I would say that if I hadn't had these personal experiences with mental illnesses, either suicide or schizophrenia, I would have to say that I would be out on a limb and do what I feel is probably right which could be very wrong"* (N 2 F ICP).
>
> *"I think the main help you have is life experience and it's really important to the way you phrase things"* (NW 3 F ICP).

Without life experience, there was a perception that the care provided was based more on gut feeling with little evidence to support the approaches adopted:

"*With a kind of mental illness/anxiety a lot of it with me comes down to your gut feeling and knowing what to say and what not to say and to suss a person out to see what would ring his bell or her bell and what wouldn't"* (NW 2 M ICP).

5.1.1.4 Ongoing education and training in mental health care: what is needed

A total of 80% (n=28/35) of participants responded to the following question:

If you had an opportunity to have input into an education and training package for post employed paramedics regarding mental health care in the out of hospital setting, what criteria do you think would be essential to include?

5.1.1.4.1 Communication and de-escalation techniques

Overwhelmingly, 74% (n=26/35) of participants reported education and training in de-escalation techniques was essential to both improve patient outcome as well as paramedic confidence in assessing and managing patients with mental illness. Participants reported poor communication skills were linked to situations where the patient had the potential to become aggressive and felt education and training around how to talk to patients with mental illness was crucial:

"*How to actually talk to your patents"* (NW 12 M P).

"Knowing what not to say is more important" (S 8 F P).

"Education on how to talk and deal with psych patients" (N 9 F P).

"The key words not to say to your mental health patients" (N 3 M ICP).

Age of paramedic was also seen to influence communication styles with 'younger paramedics' viewed as more able to communicate well with patients with a mental illness:

"*The younger paramedics aren't too bad, but the older ones just want to put the patient in the back of the ambulance and drive to hospital and not talk to them"* (S 13 F ICP).

Assertiveness training was viewed as important in regard to both managing patients who have the potential to become aggressive, as well as paramedics who have the

potential to escalate situations due to poor verbal and non-verbal skills:

> "*de-escalation techniques as well. I think there's some people that could really learn how to de-escalate situations...let's keep everyone calm"* (NW 12 F P).

> "*assertiveness, so that you're not presenting yourself as a weak withdrawn person but you're not coming across as an aggressive person"* (NW 11 M ICP).

5.1.1.4.2 Education and training in legal and ethical issues

Furthermore, 40% (n=14/35) of respondents reported that education and training in legal and ethical issues associated with providing care to patients with mental illness was warranted, as issues around determining a patient's capacity to refuse care, using chemical restraints to subdue patients and additionally, transporting patients who refuse care were all areas paramedics felt underprepared to make confident decisions:

> *"Defining capacity and exactly what our power and legal ramifications exactly are"* (N 9 F P).

> "*All we've got so far is lawyer speak and which has basically made anyone afraid to sedate agitated patients, so we'd rather put them in cuffs and throw them in the back of the paddy wagon which is probably not the most appropriate thing but that's the choice we take rather than go down the line of sedation"* (N 10 M P).

> "*When do you have to take patients to the ED. When are they considered not competent to make that decision to refuse transport"* (S 3 F P)?

5.1.1.4.3 Spectrum of disorders

Education and training pertaining to different mental illness diagnoses was reported by 40% (n=14/35) of respondents as integral in developing confidence and competence in patient care. Establishing assessment criteria and assessment skills was seen to further improve paramedic confidence in patient delivery:

> "*I don't think we learn enough about psychiatric conditions full stop"* (S 5 M P).

> *"The current terminology because terminology is for ever changing so it's nice to stay up to date with what's happening"* (N 3 M ICP).

> "*I'd like to see an assessment tool of some sort that was a bit more aligned to how we teach our paramedics to assess a chest pain or abdo pain or trauma, we have very*

distinct ways we approach those cases but I don't think we have the same structure for psychiatric cases" (S 2 M P).

"I think there probably needs to be education of other mental illnesses apart from just the mainstream ones. I still think there's quite a bit of stigma associated with schizophrenia and psychosis in general like the causes of psychosis, that they can be drug induced and things. I think paramedics probably need to be reminded and educated on the statistics of mental illness and I guess just be exposed to how prevalent it is and generally the management principles used" (S 5 M P).

5.1.1.4.4 Alternate transport pathways

Referral pathways were identified as an important area and one where further education was required. A total of 14% (n=5/35) of respondents stated they had very little knowledge about treatment facility options outside of transporting patients to hospital. It was also identified hospital emergency departments were not necessarily the best option for some patients with a mental illness:

"*A bit more emphasis on treatment pathways rather than just taking them straight to the ED"* (S 3 F P).

"The avenues to take, contacting case workers….to know there are other referral opportunities" (S 13 F ICP).

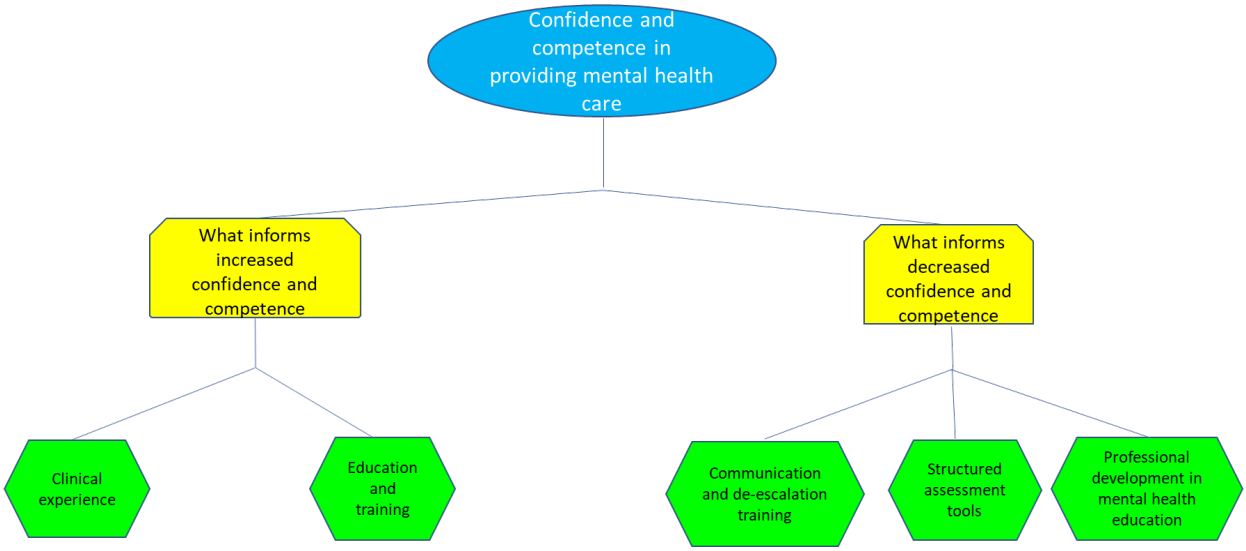
5.1.1.5 Theme summary

The responses clearly demonstrate paramedics do not believe they have undertaken sufficient education and training in providing care to patients with mental illness to prepare them to assess and mange patients with both acute and chronic illness presentations. In some instances, the respondents stated the training they received provided no opportunity to develop specific assessment and management skills. A number of areas were identified as critical in improving paramedic literacy in mental health care which included communication and de-escalation training as well as information regarding legal requirements.

5.1.2 Primary theme 2: Confidence and competence in providing care to patients with mental illness compared to cardiac presentations: paramedic perspective

Figure 2 below, is a diagrammatical representation of the themes and sub-themes. The primary theme is 'paramedic confidence and competence in providing mental health care'. The first sub-theme is 'what informs increased levels of confidence and competence' which includes clinical experience (exposure) and education and training. The second sub-theme is exploring factors that lead to a decrease in confidence and competence which includes a lack of education and training in mental health including communication and de-escalation skills and a lack of clinical resources to support patient assessment and management. The sub-themes of 'what informs increased confidence and competence' and 'what informs decreased levels of confidence and competence' provide an example of what will be included in the narrative. Additional sub-themes will also be described under these headings.

Figure 2.



The participants were asked to compare their levels of confidence and competence when called to the following case:

Your pager goes off and you read attempted suicide/psychosis. Compare this to being

called to a case triaged as chest pain. Do you feel more comfortable/confident with either of these scenarios and why'?

A total of 62% of respondents (n=26/42) said they felt more confident managing a patient with chest pain compared to a patient presenting with a mental illness crisis. Of these, 35% (n=9/26) were male and 65% (n=17/26) were female. This could be further broken down to clinical skill levels where 58% (n=15/26) of respondents practiced at the highest skill level of Intensive Care Paramedic (ICP) and 42% (n=11/26) practice at Paramedic (P) level. To clarify the difference in skill set further, ICPs have additional education and training in advanced life support, can administer more complex medications and practice more complex skills than a paramedic:

> *"More comfortable going to a chest pain in terms of management"* (NW 13 M P).
>
> "*The chest pain would be far more comfortable a case to go to. I guess it's something we are better trained to deal with in terms of both the training we go through and our interventions are a lot clearer"* (S 2 M P).

Additionally, a further 23% of respondents (n=10/26) claimed they felt equally comfortable managing both cases whereas a further 14% (n=6/26) did not answer the question. Of interest were the years of clinical practice of the ten paramedics who stated they felt confident and competent in managing both mental health and chest pain cases. Three male respondents had more than 30 years' clinical practice experience, one female with 24 years' experience and a further two males with 15- and 17-years' experience. The remaining four respondents, 3 males and 1 female, had between 8 and 11-years' experience as on road paramedics:

> "*Far more comfortable managing the cardiac job but reasonably comfortable managing the psych patient* (S 10 M ICP).
>
> "*No, I feel confident to handle both equally"* (S 1 M ICP).

The participants reported education and training, safety and fear, collegial support and clinical constructs, were all influential in their decreased levels of confidence and competence in assessing and managing patients with mental illness.

5.1.2.1 Education and training in mental health care

Of the 26 respondents who felt more confident managing patients with chest pain, 62% (n=16/26) stated that a lack of education and training in providing care to patients with mental illness played a pivotal role in their decreased confidence in assessment and management of patients with mental illness:

> *"I feel much more comfortable with chest pain or respiratory problems because we see them all the time and our training is so focussed on cardio and respiratory"* (NW 6 M ICP).
>
> *"Definitely think more comfortable managing a routine chest pain. Because we're not given the training, everything I've learned to deal with mental health patients has been through getting it wrong a lot of times. We're not given the training I think that we probably need, so it's all self-learnt and you learn by making a lot of mistakes along the way"* (S 8 F P).
>
> "*For some reason, anything to do with psychosis or domestic violence, these things weren't very well taught at university and then following on with the ambulance service, the training hasn't been very good"* (S 9 F ICP).
>
> "*Definitely, much more comfortable with chest pain. Relative unknown with mental illness. We are taught about it to a degree but I think it is a specialty area on its own and it's not really focussed on. We are looked primarily as a medical service I think and knowledge, training, awareness is probably a big thing"* (N 1 M ICP).

"*It's probably training in the first place that's lacking and the case exposure your dealing with those sorts of people in other clinical settings so that you go, ah yeah I know what's wrong with them, you can't do that with mental health, we don't have enough back-ground training"* (N 3 M ICP).

5.1.2.2 Clinical constructs

A total of 31% (n=8/26) of the responders reported they were more confident attending patients with chest pain because the assessment and management pathways were

clearly defined for those patients, in comparison to guidelines and protocols instructing the care of patients with mental illness. This caused a degree of anguish for many of the paramedics interviewed because they see their role as 'finder and fixer', meaning that paramedics make clinical decisions based on the collection and interpretation of patient information which then allows them to develop a management plan to undertake patient treatment. Decision-making processes are also guided by organisational guidelines and protocols, however when these are inadequate or unavailable, it resulted in a lack of confidence in decision-making for paramedics:

> "*If someone's having chest pain you know there's a guideline, there's treatment and in this profession, we are fixers, you know we're that kind of people in our private lives as well, you know you've got to try and fix everything and with these people there is no fix, there's no support"* (NW 3 F ICP).
>
> *"psychiatric cases are I guess; it's afraid of the unknown factor, what it's going to be, how are they going to act and knowing that realistically from an ambulance point of view we can't really treat, what's going on doesn't fit nicely into any protocol"* (S 3 F P).
>
> *"probably the only thing that you think differently for me anyhow is probably going to focus less on CPGs but more on a psychological type of thing which can often be harder"* (N 6 F ICP).
>
> "*I don't feel like I have any assessment tools to make a decision so the skills I would use are just getting a story and their history"* (N 7 F ICP).

5.1.2.3 Safety and fear

A total of 27% (n=7/26) of respondents (all female) stated the fear of violence along with the perceived unpredictable nature of psychiatric cases, resulted in them feeling less confident and competent in managing patients with a mental illness.

Lived experiences were the catalyst for some of the respondents feeling "absolute dread" when the pager read 'psychiatric case':

> *"I won't go in without police, just because of my experience in the past. "You're dealing with the unpredictable and everyone has had an experience which has been frightening"* (NW 7 F ICP).

> "*First of all, I'll say I'm always frightened because anyone with psychological issues is, are the most unpredictable patients that we have and that unpredictability scares me*" (NW 5 F ICP).

One participant discussed a case that they had been called to attend as a single response officer. The initial call was to a patient experiencing a 'diabetic emergency'. The patient greeted the officer at the door and stated he was the patient. The patient then stated that his mother was inside and she needed assistance because 'he may have hit her'. The officer stated on entering the home, the 'patient's mother was found in the kitchen with significant facial injuries from a beating':

> "*I saw her and her face, she had been so severely beaten you couldn't see her eyes at all and the top of her lip was ripped all the way up to the top of her nose and just blood everywhere and I was afraid, I was really afraid and he was obviously unstable mentally, that was obvious and wasn't because of his diabetes obviously and all I could think of was he's done that to her, his own mother, what is he capable of doing to me who he's got no bond with at all"* (NW 5 F ICP).

An interesting addition to the safety theme was that some paramedics felt there was an escalation in the risk of harm depending on who the other officer they were working with was and additionally, how they (other officer) approached cases with patients with a mental illness. Further to this, some of the respondents claimed they had been working with another officer who antagonised the patient through ridicule of hallucinations and forms of verbal abuse and put downs:

> "It depends *on the partner that you go with…..just that some people are very good at managing psych and mental health, and others are not and sometimes that person might inflame a situation rather than help it. Probably antagonise the client"* (N 9 F P).

> "*I think the only thing that would make me feel uncomfortable was the safety issue and I think that would really depend on who you were working with as well"* (S 4 F ICP).

5.1.2.4 Theme summary

A number of factors were reported by the paramedic participants to significantly influence their confidence and competence when called to assist patients with mental illness in comparison to patients presenting with chest pain.

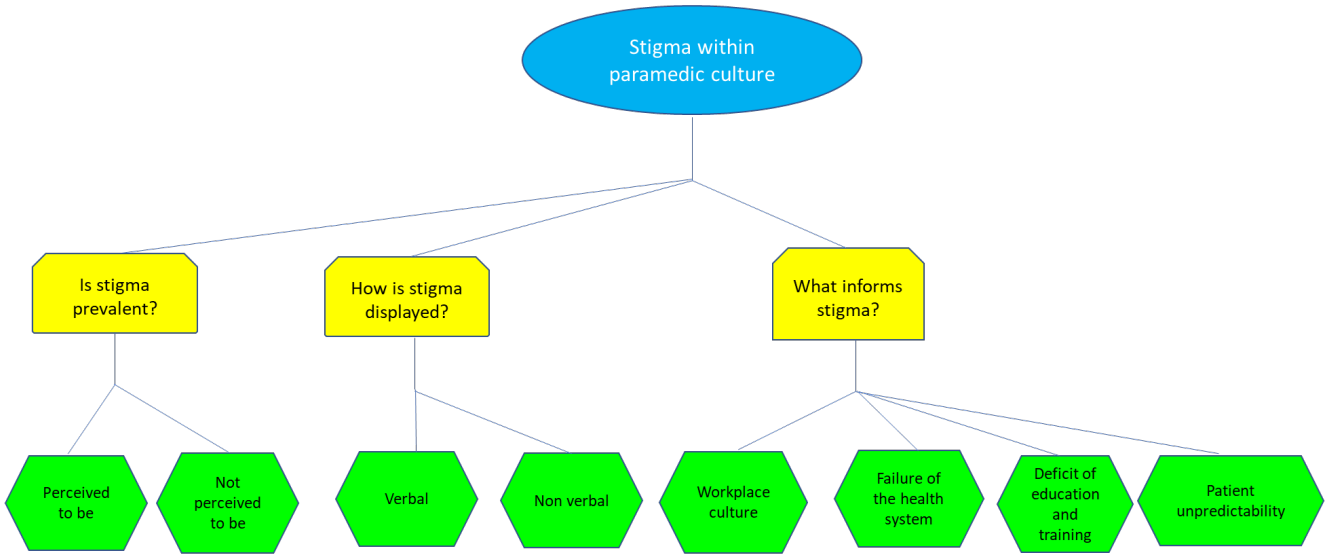
Not surprisingly, education and training was viewed as a critical influencer in developing confidence and when it was lacking, confidence levels were significantly impacted. It was reported that decision-making processes regarding patient care were often challenged as a result of a lack of supporting organisational guidelines and protocols for providing care to patients with mental illness.

Patient unpredictability and the fear of harm were also associated with a lack of confidence in assessment and management for patients with mental illness.

5.1.3 Primary theme 3: Stigma within paramedic culture

Figure 3 below, is a diagrammatical representation of the themes and sub-themes. The primary theme is 'stigma within paramedic culture'. The first sub-theme is exploring the prevalence of stigma. The second sub-theme is exploring how stigma towards patients with mental illness is displayed. The third sub-theme considers factors such as workplace culture, inadequacies of the health system, a lack of education and training and patient unpredictability that inform stigma. The sub-themes of 'prevalence' 'how stigma is displayed' and 'what informs stigma' provide an example of what will be included in the narrative. Additional sub-themes will also be described under these headings.

Figure 3



5.1.3.1 Is stigma prevalent?

With a response rate of 86% (n=36/42), the participants were asked the following question to determine whether there was a belief that stigma towards patients with mental illness was inherent in paramedic culture:

Research has shown there is stigma associated with mental illness, in particular from health care workers. Do you think there is stigma within the paramedic culture to mental illness?

A total of 92% (n=33/36) of respondents believed stigma towards patients with mental illness was prevalent within paramedic culture:

> *"Yeah absolutely, yeah absolutely, you will find that those people on the pager are often the category neediness"* (N 2 F ICP).
>
> "*Definitely. I think it's just a typical thing when people get the psychiatric on the pager there seems to be quite a large response of paramedics going, oh this is going to be a bullshit case, or not another psych case"* (S 4 F ICP).
>
> *"There's a perception of time wasting, there's a perception that because it's not one of our sharp end of cases where we're going to stick IVs in and intubate them and that sort of thing. It's not serious as how I perceive most people see it, it's not a serious case so it's not worthy of an emergency ambulance*" (NW 11 M ICP).

In addition to this however, 6% (n=2/36) of participants stated that they had not seen any evidence of stigma towards this group of patients:

> *"Certainly, as an individual I don't view mental health with any stigma, I view it as a legitimate medical issue"* (N 12 M P).

> "*Not from what I've seen so far . I don't think there's any stigma that I've see first-hand"* (NW 13 M P).

Furthermore, 2% (n=1/36) of participants reported a change in attitudes towards patients with mental illness presentations:

> *"I think there has been a huge improvement since I started, I really do. Like I am often surprised to hear paramedics say, oh, poor thing you know whereas 6-7-8 years ago you would never hear empathy towards someone that was attempting suicide"* (NW 3 F ICP).

5.1.3.2 How is stigma displayed?

In addition, the participants described how the use of both verbal and non-verbal communication styles were used when referring to patients with mental illness:

> *"People make comment as soon as you get a page and use stuff like nutter and psycho and the crazy eyes and all that sort of stuff"* (NW 7 F ICP).

> *"From just being short with them and not giving them the time or not happy to give them the time. You know, this is such and such again and they're just wasting our time"* (NW 9 F P).

> *"Oh, next time I'll tell them how to do it properly, you know just the same old same old"* (NW 3 F ICP).

> *"I think as a paramedic I tend to roll my eyes and go oh yeah another psych patient. Boring, not challenging, no interventions. We like to fix things. Much harder for us to pigeon hole them"* (S 10 M ICP).

> *"You see it around the tea room if the job comes in and it's a mental health case then I suppose the eyes do roll and then there's a few comments so yeah I certainly think that there's some stigma associated with it. Why have they called an ambulance, why can't they help themselves, why are we going to this type of job when we should be attending the car accident"* (S 6 F ICP).

5.1.3.3 What informs stigma?

A number of factors were identified by the participants as influencers of stigma within paramedic culture.

5.1.3.3.1 Deficit of education and training

Not surprisingly, a lack of education and training in providing care to patients with mental illness was linked to poor understanding of the various disorders, including patient signs and symptoms which was seen to influence stigma towards patients with a mental illness. This was described by 33% (n=12/36) of participants who reported this as significant in developing negative attitudes towards patients with mental illness:

> *"I think a big part of it is lack of education, so lack of knowledge to adequately deal with the people and maybe an understanding of the fact that not all illnesses are physiological"* (S 6 F ICP).

> *"I think it's because partly due to a lack of training, lack of understanding on the part of the patient and therefore that leads to a lack of empathy towards the patient"* (S 7 M ICP).

A deficit of education and training was also linked to a fear of violence from patients with a mental illness, with reports that education and training in communication skills was essential in developing an understanding that not all patients will respond appropriately to questions or in fact answer questions. Furthermore, education and training was seen to foster an appreciation that patient body language is not always a display of aggressive behaviour and additionally, mental health patients are not necessarily all perpetrators of violence:

> *"if someone's flapping around its classed as aggression. I could get hit so I'll use my OH&S systems and I'll wanna have police here with batons and I want hand cuffs and I want them to be sedated so that I won't get hit, but a lot of these people are not actually trying to hurt you. If they wanted to hurt you or if you wanted to get hurt, go to a bikies club at midnight and bust in the front door and see if you get hurt"* (S 1 M ICP).

5.1.3.3.2 Embedded within culture

A deficit in education and training was also linked to the notion that stigma was a product of on the job experiential learning. This was further linked to a prevalence of stigma within paramedic culture and a reliance on knowledge and skills being passed on from other paramedics which resulted in a transference of negative attitudes.

A total of 44% (n=16/36) of participants found stigma entrenched within paramedic culture and reported that often these cultural attitudes influenced attitudes of other staff:

> "*Culture, workplace culture….. basically, it's passed on, bad habits are passed on and the only thing that can change attitudes is the people themselves"* (N 11 M ICP).
>
> *"I think a lot of it is the fact that there is no actual training, so people are just learning by what they pick up from their peers. Now there's good things to learn from your peers and there's bad things. Now someone whose been in the job for 10,15,20,30 years, there's a lot of good things but they've also been doing it for a long time so I guess they're fairly fed up with certain things"* (NW 10 M ICP).
>
> *"One of the CSOs that I was working with, you could say query verbally abusive, just told the patient that he's wasting time and wasting resources"* (NW 1 F P).

An interesting view was that the age of the paramedic and their years of clinical practice were seen to influence cultural attitudes:

> "*Honestly, I think it's the new generation coming into the ambulance service…. it's a different perspective, it's a different culture than the old school. The old school were always stiff upper lip and the worse things you're seeing the better officer you'd be whereas now, I don't know if this is the right way to say it but it's almost like the x and y generations have been bought up that mental health issues are normal"* (NW 3 F ICP).
>
> *"I can recall overdoses, going with very old crews when I was very young, it was almost slap them in the face and wake them up, throw them on the stretcher. And one of the reasons there was this roughness was the belief that if you were unkind and rough they wouldn't do it again. And that attitude and theory carried on in the emergency department where they were given the gastric lavage, they were forced to swallow the charcoal, ipecac syrup was a favourite for torture at some stage as well"* (S 1 M ICP).

5.1.3.3.3 Failure of the health system

A total of 50% (n=18/36) of respondents reported frustrations and stigma towards patients with mental illness resulted from the 'revolving door concept' where patients frequented the ambulance service with the same presentations, often more than once a day:

> *"So we get burdened with them to take them, to take people that probably don't really, they don't need an ambulance to take them to hospital as such, they could go by other means but because nobody else really knows what to do with them we get lumbered with them"* (N 10 M P).

> *"I'm not sure if it's just because it's a smaller town but we tend to get a lot of regular clients and that really doesn't help in how people view them...yeah not sure what the stigma is but you'll get, oh, not again"* (N 9 F P).

The attitudes of health care professionals were seen to influence paramedic negative attitudes towards patients with mental illness as well, in particular nursing staff working in the Accident and Emergency (A&E) departments. As an example, the participants reported feeling frustrated when they were required to spend a significant amount of time convincing their patient that they did need to be transported to hospital for further assessment. To facilitate this, the patient was informed that this was the best option to help facilitate their ongoing treatment and recovery, however on arrival at A&E the patient and crew were met with negative attitudes from nursing staff:

> *"I have seen a triage nurse roll their eyes when we've taken patients …… You know, ooh not another one, I don't have to deal with that on my shift attitude"* (NW 13 M P).

> *"Particularly in nursing, we take someone in to A & E for example and they're immediate response can be quite negative… they're immediately treated quite badly and spoken to quite badly"* (N 6 F ICP).

Whilst paramedics stated A&E was not the most appropriate place for patients presenting with a mental illness crisis, it was identified that it may be the only option available, particularly afterhours:

"Most of us don't believe the emergency departments the right place to take someone with a mental health issue because when you get there the emergency department don't want them, they can't manage them or they don't have the resources or education and training" (NW 6 M ICP).

This was seen as a failure of the health system to provide appropriate transport options for patients with mental illness, further fuelling the frustrations and negative attitudes paramedics held towards patients who frequently re-presented to the ambulance service:

> *"Systems fault because it is just a circular door so you are seeing the same people"* (NW 10 M ICP).
>
> *"Half of it would be a lot of it as regional, so we're not in the city we're out in the country and we've had such a muck up with do you go to Mersey and they go, we can't do mental health here so you go well I don't know that they have a mental health issue, they just need an assessment or they've been drinking so it's pointless taking them all the way through to Burnie...there's just this backwards and forwards with this Burnie thing versus this Mersey thing and you go and see them and look over the years I don't really think that there's a lot that they've been doing for a majority of people that re-present all of the time"* (NW 4 F ICP).

Paramedics like to 'find and fix' problems, however there is a perception that in general, there is very little treatment paramedics can provide to patients presenting with mental illness. This notion of 'there isn't anything I can do to help this person', further escalated the stigmatising behaviours directed towards patients who are frequent callers to the ambulance service:

> *"So, we're called frequently to 'Bob' and 'Bob' is just wasting our time because there's nothing we can do for him and he doesn't want to go to hospital, there's no treatment that he needs because there's no treatment that we can give him"* (NW 11 M ICP).
>
> *"as paramedics or doctors or nurses you want to treat people that you can help and there just doesn't seem like you can help some mental health. You know we don't have the skills, there's no medication that you can just go you know, take their SVT down to sinus, ooh saved them, cool. No, it doesn't happen with mental health patients"* (NW 1 F P).

"I think a lot of frustration comes from the fact that there's not much we can do for them apart from transport them. So from our role it's like you go into these people's houses, you spend all your energy to convince them to come to hospital and they can be rude and obnoxious and difficult to reason with and I think that's perhaps where a lot of negativity comes from and you pick up your pager and read it's a psych patient...ooh, I've gotta go through this again and then it's hard because there's not much we can do to help them apart from transporting them to hospital" (S 3 F P).

5.1.3.3.4 Fear of violence

Patient unpredictability and a fear of violence was also found to influence stigma towards patients with mental illness which was further endorsed by personal encounters where staff had experienced or witnessed physical or verbal abuse:

"When I was a first-year student I went to a large aboriginal gentleman who was having a psychotic episode and I was with an about to retire paramedic and he became quite aggressive with us, the police were there and they ended up having to cuff him and all of that sort of stuff. He swung a punch at my off sider, hit him in the chest and he had open heart surgery so he retired not long after that because it sort of scared him a bit.... it scared me if I go to a psychotic episode on the pager it does worry me a bit" (NW 7 F ICP).

"An individual that I am re-presented with regularly who has substance abuse issues, they have schizophrenia, they have alcoholism as well and it's a female and they're always calling for either they're going to kill people or kill themselves and when you get there they want to kill you pretty much and this person is difficult, very difficult. The last time I ran into this person I was at a case and this person was in a house next door and ran over and started going off their head and punched me and we weren't even there for that person" (NW 3 F ICP).

5.1.3.4 Theme summary

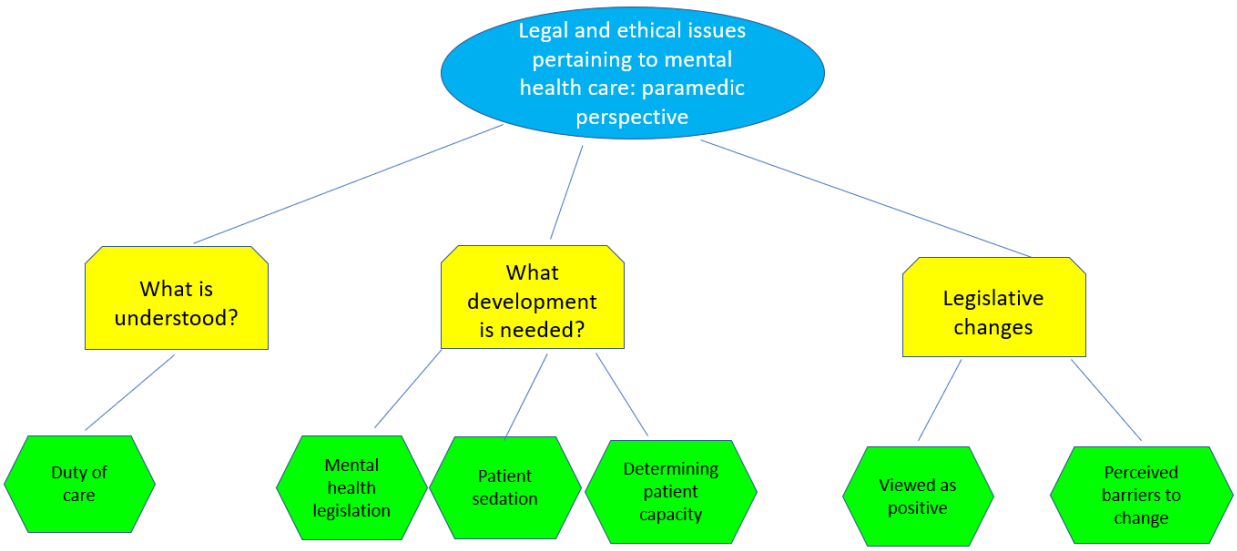
Stigma towards patients with mental illness is prevalent within paramedic culture. The participants reported that less value was placed on mental health cases, they were seen to be unmotivating and less challenging than other cases. In addition to this, patients with a mental illness were viewed as time wasters. A number of factors such as fear, culture and education and training were reported to influence stigma towards patients with mental illness. Central to these feelings and behaviours was the limited

transport options available to appropriate mental health facilities with the health system reported to be ineffectual in mental health care. This often resulted in patients re-presenting to the ambulance service for the same problems on numerous occasions which further promoted frustrations and stigma.

5.1.4 Primary theme 4: Legal and ethical issues pertaining to mental health care: paramedic perspective

Figure 4 below, is a diagrammatical representation of the themes and sub-themes. The primary theme is 'legal and ethical issues pertaining to mental health care from the paramedic's perspective'. The first sub-theme explores the paramedic's understanding of legal and ethical issues which includes knowledge of a duty of care. The second sub-theme explores areas the participants report as requiring further development and understanding in. The third sub-theme explores the paramedic's perceptions of changes to the legislation. The sub-themes of 'what is understood', 'what development is needed' and 'legislative changes', provide an example of what will be included in the narrative. Additional sub-themes will also be described under these headings.

Figure 4



The participants were asked to provide answers to questions about the current *Mental*

Health Act and their legal requirements and obligations when assisting patients with mental illness presentations. With predicted changes to the current legislation, participants were also asked if they were aware legislative changes were expected and what impact these may or may not have on paramedic care of patients with mental illness. A total of 81% (n=34/42) of participants responded to questions regarding mental health legislation which found that knowledge around legal responsibilities was diverse amongst responders.

5.1.4.1 Duty of care

The participants were asked to describe their actions to the following scenario:
You are called to a patient who has a diagnosed severe depression and they are threatening self-harm. You have been called out by another party member. When you arrive, you assess the patient and determine that management needs to be continued in hospital however the patient refuses. In this scenario, what is your understanding of what you can do?

With a response rate of 62% (n=21/34) the participants reported they had a duty of care to keep their patients safe and patients who were deemed to be a danger to self or others but refused care and transport, could legally be taken into protective custody and transported to an emergency department for further assessment and ongoing care. The participants stated that police were required on scene as they had the legal authorisation to take patients into protective custody, whereas paramedics do not. A small number of participants reported that police in general were not authorised as mental health officers, this was the responsibility of a police sergeant to authorise placing a patient on an involuntary order:

> *"I know that I have this thing called duty of care, that's so if someone states they have a plan or they were considering suicide or you know along those lines, or this was an act to kill themselves that I have a duty of care. As far as I believe I can't unwilfully detain anyone so if I think that they're under mental health thing, I personally can't lock them in*

my ambulance and make them stay there. I think we need a sergeant to do that, we need a police person" (NW 1 F P).

"Obviously, we have a duty of care to them if they're a danger to themselves or others so we'll do our best to get them to hospital. So, if they're refusing, then the police have the authority to forcibly make them attend a hospital and we can assist with midazolam perhaps to calm them down. So, we certainly don't have the power to remove them forcibly" (NW 2 M P).

"Well I guess the ethical principles are still the same as for any other job. So first do no harm and then also autonomy of the patient so they have the right to decide their own treatment and management and outcomes, but also on top of that if they aren't capable of making decisions, we have to make decisions for them that are going to help not hinder them" (S 5 M P).

"I know I can't take them against their will so I can spend some time trying to coax them into it but if I can't then basically I have to call police" (S 6 F ICP).

"They need to be put under an order to be taken to hospital and obviously we can't do that so we need to call police" (S 12 F P).

"*In order to section somebody, you have to have a police sergeant to do that, not just an ordinary cop, it has to be a sergeant"* (NW 5 F ICP).

In addition, one participant identified that their duty of care was to not leave the patient at home if there was a risk of harm, however sedation was identified as a means of treatment to aid in transport:

"I think they've got a right to refuse care and I think I'd have to determine that on case by case basis, however if I felt this was something to do with their illness and they were going to harm themselves, I suppose I would go more with sedate them and take them rather than leaving them. I suppose because our training is just, we know nothing about mental health u it's better to be on the side of caution rather than infringe on their rights I think" (NW 4 F ICP).

"Basically duty of care, you're really operating under mental health act and so if they're a danger to themselves or others you can intervene but if they're not a danger to themselves or others then my understanding is apart from referring them to other people, there's not a lot you can do currently" (NW 11 M ICP).

It was noted by one participant that the emergency department was not the most appropriate transport destination for patients with mental illness, further reporting that the best transport options was additionally a component of duty of care:

> *"If they won't go to hospital I can understand that, hospitals crap doesn't do anything, they can't get psych's in to do any assessments after hours and these people just sit there all night. The best thing you can do is try to get them to their GP because the GP can then refer them and get them an appointment in an out clinic or something like that"* (NW 3 F ICP).

5.1.4.2 *Mental Health Act 1996:* do paramedics understand their legal responsibilities?

With regard to the current mental health legislation, the participants were asked to respond to the following question:

What is your understanding of the mental health legislation*?*

A total of 15% (n=5/34) of participants reported that their knowledge regarding their legal responsibilities was an area that required further development. Of interest was that the majority of these participants were ICPs who had undertaken additional education and training to gain additional qualification in paramedicine:

> *"Toughie, I knew you were going to ask me this question. My knowledge is embarrassingly vague. I would probably be looking at my partner and going…do you remember.. I could pull out my book and have a look because we've got time and at the end of the day I would like to think between those resources we would work something out. Can I pull the information off the top of my head? Absolutely not"* (N 3 M ICP).
>
> "*I have a very poor understanding of that I would say"* (N 7 F ICP).
>
> *"I'd say it isn't great, because as I understand it each state has different legislation. I have never actually had any training here in Tasmania regarding legislation"* (NW 8 M ICP).

There was a belief that paramedics had the legal authority to place a patient under an involuntary protective custody order and transport them to hospital. Paramedics are

not classified as mental health officers under the *Mental Health ACT 1996* and therefore do not have the authority to take patients into protective custody:

> *"Yes, as a paramedic I can legally transport a patient involuntary if they haven't got the capacity and the reality is you don't want to do that because it's such a tricky ground so before you get into that point you would try everything else"* (NW 10 M P).

5.1.4.3 Perceptions of the changed *Mental Health Act*: will practices change?

The current *Mental Health Act* is under review and will be replaced in the foreseeable future. Given this and the impact this may have on patient care, the participants were asked to respond to the following question:

Changes to the new Mental Health Act will afford paramedics the authority to transport patients involuntary if they are at risk of harm to self or others. Police will not be required to authorise these transports in future. What impact on paramedic practice do you believe this will have?

A total of 59% (n=20/34) of participants acknowledged they were aware the current *Mental Health Act 1996* was going to be replaced at some time.

5.1.4.3.1 Legislative changes viewed as positive

Additionally, giving paramedics the authority to take patients into protective custody was viewed as a positive step in the continuity of care for the patient:

> *"I see it as a good thing, because we've had first contact with that patient and the presentation to us maybe very different to the presentation at ED"* (N 12 M P).

> *"Overall, I think it's good but you still may need police assistance for some of them you know because some might be resistant"* (N 4 F P).

> *"I guess it will probably change my practice. I think a lot of the time we call the police as an extra presence, we feel as though they might have more authority or their presence can sway people, so there might still be times where that's warranted or other people might use that, but I guess if we're legislated to enforce people to go to hospital however that might be, then that will actually be a tool where you won't have to call the police depending on then what the person's reaction is. So, I think that could be a positive thing"* (N 6 F ICP).

5.1.4.3.2 Clinical practice will not change

In addition to this however, the change in legislation was not viewed in a positive light and was not seen to promote a change to clinical practice given the risk of harm that may result from taking a patient into protective custody:

> *"Well good luck getting them into the ambulance, because that's what we usually have the police there for. It is literally for force and you know I'm not trained to handle some one that's trying to ninja kick me and I tell you what, I'm not going to bother with it either... you know if someone says they're not coming and if you touch me I'll punch you, well I think that's a pretty good reason to leave the job now. How do you safely hold someone down while you're taking them to the ambulance, I wouldn't know how to do that, then I think yeah you've sort of lost that respect a bit with the community, you know, towards the mental health side"* (NW 1 F P).

> *"I don't think it will change the way that I work. I wouldn't be forcibly removing someone without the assistance of the police I don't believe. Because that's their job, they can do it safely and we can assist"* (NW 2 M P).

> *"I would still call the police, because at the end of the day if someone doesn't want to go and they're going to resist you what are going to do, what am I gonna do; I'm not going to karate chop them and I don't know jujitsu, so you know you're still going to need assistance of some sort"* (NW 3 F ICP).

> *"I'd probably still get police involved because they're the ones with the experience, we're not, probably for at least 12 months, 2 years, just to bounce ideas off and discuss it with them, and you may need their assistance so it might be a wise decision"* (NW 7 F ICP).

> *"I don't think it will be a good thing, I don't think it will be a good thing because there is a distance that comes with having police as the authority when it comes to things like that. Um, you know, it can be very helpful at times to say to someone, themselves or even their family, it can be very helpful for us to be able to go, um, we can't force you to go but, if you don't go then we have a moral responsibility to call in the police and they can force you to go etc, and sometimes that's enough"* (NW 8 M ICP).

> *"It gives us more responsibility and a responsibility that leaves us open to maybe a bit of trouble down the track if we get it wrong. Do we need that, don't know? I can't say yes or no, I don't know. It's not always an easy path is it to get those people to go and I don't particularly like that idea of being in that scene where they become unsettled and violent, aggressive"* (N 7 F ICP).

5.1.4.3.3 Perceived barriers to change

The participants identified education and training and the impact to resourcing from delayed patient handover and increased calls for assistance, as issues that could impede acceptance of the new legislation and therefore changes in practice.

5.1.4.3.4 Perceived barriers to change: level of education and training

Accessibility, delivery and rigor of the mental health legislation education and training package was cited as a significant barrier in executing change to the delivery of care:

> *"There will be a lot more training I hope. There will want to be a lot more training than there was on the pain relief package. I hope the mental health authorities, the people who work in mental health make sure they put together a training package that's appropriate because I think it has the potential to be hugely problematic for the ambulance service if there is no proper training because if we start authorising patients that shouldn't be authorised it's going to be a really big problem because we're assaulting the patients"* (NW 6 M ICP).

> *"Probably could cause us a few issues I reckon. Not particularly with resourcing, but the way people are assessing people as to whether they do think they're competent or not. I don't think we've had the appropriate amount of training to say that someone needs to be. It comes back to the assessment stuff and training, not got enough specific training"* (N 5 M ICP).

> *"The new mental health act, I haven't actually been briefed on apart from the fact we're going to be made authorised officers which I would hope is accompanied by an appropriate amount of training and assessment because my concern, I don't know if you know about the way the new guidelines were introduced, it was supposed to be a 2 day workshop and that was it and there was no measure whether the learning had occurred. You could have gone to sleep in the corner, so long as you attended for the 2 days that was it. If we have a training package for becoming authorised officers I hope there is an appropriate level of rigor applied to assessments as well because we need to be sure we're respecting people's rights as well as ensuring we're doing the right thing by people. And that will always be a tricky balance for mental health patients and any time you restrain someone or take them into protective custody of some sort, it's a huge infringement of their individual rights"* (NW 11 M ICP).

Furthermore, it was identified that inadequately trained officers may not feel confident in their decision-making skills to safely take a patient into protective custody and therefore patients may not receive appropriate care:

> *"I reckon it will be very similar to the midazolam and people are going to be unsure about when it would be appropriate to do it. The hard-core psychotic people that you know have to go, that won't be a problem but it's those ones that are a bit borderline that you think should go, they seem ok but not really, yeah it's those borderline ones that really do need to go but you unsure of making that decision"* (NW 7 F ICP).

> *"I would say those powers should be enabled or given to only those paramedics who are willing to have a good understanding and are able to have a good understanding of the mental illness itself and the legislation. I myself would be interested in doing it, doesn't mean that I necessarily have the constitution or knowledge for want of other words to do it but after the training I may have the confidence and then be comfortable with doing what I need to do for a person suffering with a mental illness"* (N 5 M ICP).

It was further reported that additionally, paramedics could potentially use their new 'powers of authority' to transport involuntary patients without utilising other assessment and management measures such as verbal de-escalation skills in the first instance:

> *"I don't know what the changes will be but…it's kind of scary for the patients I reckon. It won't change my practice much because I think that most of the time I'm able to negotiate with people even if they don't initially want to come. I've never, never had somebody refuse, but I can see how that would be very dangerous for other people to, you know I can see paramedics and staff just taking that to heart for what it is and then not using their negotiation skills and jumping right in there to, you know exert their authority"* (NW 5 F ICP).

> *"It's quite possible that people with limited knowledge of mental health issues and I'm going to put in brackets there in parenthesis some of the younger people in the job may, end up being a little bit gun hoe with, look we can make you go, you know, we can force you to go"* (NW 8 M ICP).

5.1.4.3.5 Perceived barriers to change: patient handover

The participants voiced concerns that patient handover at the emergency department or other approved mental health assessment facilities, could be delayed if another mental health officer or health practitioner was not readily available to accept the

patient. This would result in significant resourcing problems and potentially patient care if ambulance crews were not available for dispatch. This concern was based on experiences police had found as mental health officers when taking patients into the emergency department for assessment under a protective custody order:

> *"the police have big problems when they arrest someone under the mental health section and they take them to hospital, you can't just leave them there, you've got to wait until another authorised person arrives and even at the Royal Hobart that might be 5 or 6 hours. Are we going to tie a crew up at the hospital ramped with a mental health patient for 5-6 hours"?* (NW 6 M ICP).

5.1.4.3.6 Perceived barriers to change: impact to resourcing from increased workload

Concerns were raised regarding additional impacts to resourcing as there was a belief that paramedics authorised to transport involuntary patients, would be called to assist patients with mental illness more often, leaving police to carry out other policing duties:

> *"I just think that we might become, dumping grounds not a real word, but we might be the easy out for the mental health authorities rather than get called out in the middle of the night, just call an ambulance. So, I think our case load will go up... and the other issue is when someone rings the hospital or Spencer clinic and says my partners going off the beam or whatever, currently because we don't authorise, I'm not sure that we always get called, I've got a feeling we'll be called more often if we're seen as an authorising authority and supposedly better trained etc. I have a feeling we'll get a lot more patients."* (NW 6 M ICP).

5.1.4.4 Determining patient capacity: do paramedics have the skills?

Ambulance Tasmania (AT) Clinical Practice Guideline 'Agitated Patient' CPGA0708, states a paramedic must assess whether the patient has legal capacity to consent to or refuse treatment prior to using chemical sedation.

A total of 50% (n=17/34) of participants responded to the following question:

How do you determine whether someone has the capacity to refuse care?

Determining a patient's capacity was described as being difficult and 'grey':

"*That's hard, isn't it? It sort of goes beyond the GCS score"* (N 1 M ICP).

"This is where it gets complicated because you're talking about capacity and there is no simple thing, yes you can read the law but it's not as simple as that" (NW 10 M ICP).

Whilst paramedics have access to a mental status guideline, an unfamiliarity with the guideline was reported:

"*I'm aware of some protocol driven descriptions…. but I don't learn them off by heart so that's always there but I don't tend to remember them or probably use them"* (S 1 M ICP).

Patient history, past and present, was seen to be an important measure in determining capacity. This included medical history, mental illness as well as being under the influence of alcohol and other drugs:

"The main things I use are drugs either prescription or non-prescription, alcohol, obviously if they're showing signs of lack of insight like if they were psychotic" (S 4 F ICP).

"Their mental illness, what is their mental illness, clinically is it just a depressive episode or a schizophrenic episode" (S 15 M P).

Communication was seen to play a pivotal role in determining whether a patient had capacity. This included the paramedic taking the time to talk to the patient and sometimes having to ask difficult questions about suicide thoughts and plans:

"You have to get into quite deep conversations with them and as I said these are uncomfortable conversations. I think some people would probably avoid having those conversations and therefore don't do a very thorough assessment on their patents because their uncomfortable and its things like asking do you actually want to commit suicide" (S 12 F ICP).

An important defining factor was whether a patient could retain and recall information that had been given to them, including their current health status:

"W*e would assess that on whether someone could retain and recall information and advice we had given them. Someone could still be intoxicated but if they could recall the information and advice that you had given them, then that would certainly influence whether we thought the patient had capacity as opposed to I guess, someone whose*

got no idea, can't remember what you told them five seconds ago and I would deem that person incapable of making a decision" (S 5 M P).

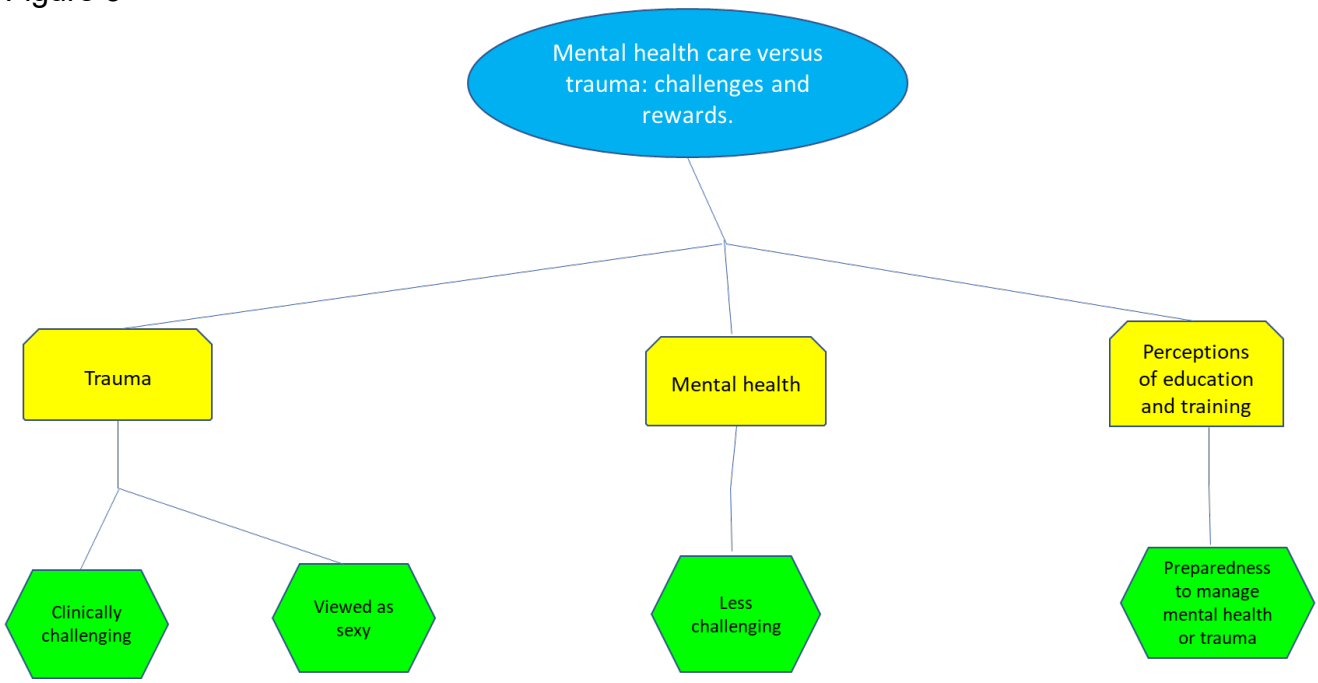
5.1.4.5 Theme summary

The paramedic participants acknowledged that they had a duty of care to ensure their patients were safe and under the current mental health legislation, with the majority being cognisant of the fact that a police officer was required to authorise the in-voluntary transport of a patient for ongoing medical care. There was an awareness amongst some participants that the legislation was going to change which would result in a significant change to paramedic practice of the mentally ill with paramedics being authorised to take patients into protective custody. This was seen to polarise the participants with views that it would allow for continuity of patient care and improved patient outcomes, whilst others reported that they would still ensure police were involved as there was a perception that police were better trained to manage aggressive behaviour. Education and training was reported to be paramount in facilitating an effectual change process.

5.1.5 Primary theme 5: Mental health care: is it as challenging and rewarding as trauma?

Figure 5 below, is a diagrammatical representation of the themes and sub-themes. The primary theme is 'mental health care versus trauma: challenges and rewards'. Three sub-themes emerged which were 'trauma' which was found to be more challenging clinically and viewed with a higher regard; 'mental health' which was seen to be less challenging and 'perceptions of education and training' with regard to preparing the paramedic to manage patients with mental illness compared with patients with traumatic injuries. The sub-themes of 'trauma' 'mental health' and 'perceptions of education and training', provide an example of what will be included in the narrative. Additional sub-themes will also be described under these headings.

Figure 5



A total of 86% (n=36/42) of participants responded to the following question to ascertain whether providing care to patients with mental illness is seen to be challenging, rewarding and motivating:

You are sitting around the table at HQ. There are 3 crews, all skill levels are the same. Everyone's pager goes off at the same time. The other 2 crews have been dispatched to a motor vehicle crash on the highway. You and your partner have been dispatched to the local supermarket, the call has come in from a third-party member who is concerned for the welfare of a person who is looking confused and distressed in the car park. How do you feel about the case you have been called to? Do you wish that you were also attending the MVC as well instead of the psychiatric case?

A total of 58% (n=21/36) of the sample stated they would prefer to attend the motor vehicle crash case, whilst a further 41% (n=15/36), stated that they were happy to go to either case.

5.1.5.1 Trauma as a clinical challenge

The participants found trauma cases to be clinically challenging as there were a number of confounding issues that needed to be managed and the participants felt that

their education and training prepared them to manage these situations in a timely appropriate manner:

> *"I'd probably be jealous of the other crew to be honest that potentially they were going to something with more meat to it, it's a lot more challenging, its possibly in a lot more dangerous environment, there's greater safety issues, there's intervention and management issues to be considered, whereas to go and have a look at someone walking around a carpark is boring, not challenging"* (S 10 M ICP).

> *"Given the training we are given for the traumas, for the medical conditions yes it would be nice to go to that but it wouldn't be as exciting I suppose you could say to go to the mental health job"* (N 1 M ICP).

5.1.5.2 Trauma as a 'sexy job'

The participants also viewed trauma cases as having more kudos within paramedic culture which was seen to also influence preference for the trauma case:

> *"I think in my experience at least that is what everyone gets more sort of excited about, and of course there's also the business of oh you were involved in that job. Well they're not going to say that about the psych at Woolworths, they are going to say that about the big prang up Wilmot road"* (NW 8 M ICP).

> *"Like do I wish we were going to the big one, yeah, I guess so, that's the essence of the job I suppose. Yeah, I mean I guess everyone wants to go to the sexy jobs you know, the big jobs that have got a good story with them, it would be more fun going to that one, it's a terrible thing to say but you know what I mean"* (N 8 F P).

> *"Absolutely I mean we want to be involved in good jobs. This one might well be but sort of history tells us that it could be anything from a hoax to someone that's going to be difficult to deal with at least and someone that we probably won't treat. So yeah you know you think, oh yeah that'd be right, I got the short stick I think on that one"* (NW 2 M P).

> *"Yeah, disgruntled, disappointed, yeah. I don't know if it's a natural thing or as paramedics its natural to us to want to attend the so called bigger job. I think we all, I'm sure we'd all want to go to that"* (NW 8 M ICP).

> *"We all have that feeling of wanting to get decent work, that's what we train for"* (S 8 F P).

5.1.5.3 Perceptions of education and training in trauma care versus mental health care

The participants identified a greater emphasis was given to education and training in trauma compared with mental health care. This was seen to better prepare the participants to treat and manage traumatic conditions and additionally, influenced their preference to attend the motor vehicle crash:

> *"That is a hard question, you have to be professional, we are there to help people and underneath it all that is still with us all I would like to think, but given the training we are given for the traumas, for the medical conditions yes it would be nice to go to that but it wouldn't be as exciting I suppose you could say to go to the mental health job"* (N 1 M ICP).

> *"Well I'd probably prefer to go to the prang because I know I could probably do it with my eyes closed. Yeah, there's no doubt I would much prefer to go to the prang than go to bizarre behaviour, yeah definitely"* (NW 1 F P).

> "*I think that sort of stigma is all due to the fact that basically our training, 90% of your training is for 5% of your jobs. Because those prangs or whatever, AMIs or strokes, people see those as more life threatening"* (S 14 M P).

5.1.5.4 Mental health less challenging

Providing care patients with mental illness was seen as less of a clinical challenge compared with patients presenting with traumatic presentations. In some instances, the participants reported very little treatment options for patients with a mental illness presentation and this was seen as frustrating and a waste of their clinical expertise:

> *"it's a little bit of what ambulance works about, it's in some ways you sort of feel like you can do something for a trauma patient whereas with a mental health patient all you can do is hopefully not make them worse or upset them more and just drop them off there the same as you found them or a little bit calmer maybe"* (NW 4 F ICP).

> "The *lazy side of things are psych patients are easy to manage because there's no acute medical. If it's just a mental health type problem then generally there's not much for us to do other than just talk"* (S 5 M P).

"We frequently get people who are not coping in some way and you feel like there's not very much that you can do to help them so it's not a very interesting case from that point of view" (NW 11 M ICP).

"Ide probably want to be going to the other job because it sounds more interesting and to be honest you might be using more of your skills. Sometimes it takes more time and verbal effort with mental health patients whereas the chest pains or the car accidents you go in and your very systematic working to a protocol, it sort of flows a bit easier whereas mental health patients can go all different ways" (S 9 F ICP).

5.1.5.5 Experience produces complacency

Experience and a 'been there, done that' mind-set was a factor that resulted in the 'happy to attend either case' attitude described by some of the participants:

"Not these days, no, not these days. Happy to go with whatever the pager says. On a more pragmatic side, my trucks not going to get as dirty as theirs" (N 5 M ICP).

"I used to but no not anymore. I don't have to prove anything to anyone" (N 11 M ICP).

"Five or six years ago, new on the job and I would be a bit; why am I getting stuck with this job, but not too fazed by it now..... probably my attitude towards it and a bit of experience" (NW 9 F P).

"One job at a time. That comes with age" (S 6 F ICP).

"We all want to go to the good jobs don't we, but I guess having been in the job for long enough now I've seen a lot of everything and I don't have that attachment to definitely wanting to get to the big prang. So, it wouldn't bother me" (S 8 F P).

5.1.5.6 Mental illness or an acute medical presentation: the challenge for some

Providing care to patients with mental illness was not always seen to be routine, with one significant challenge identified: the ability to determine if the patient was indeed presenting with a mental illness or an acute medical presentation:

"You think of your young psychotic patients, what about your older patients and have mental problems but multiple medical issues. I think they are interesting because they are complex. If you want a simple job well then, its patient transport, go and be a taxi driver. Isn't that the attraction of the job that you're going out with all of these multiple things going on, it's not always a nice friendly environment and you're working out what's potentially going on and what you can do to help" (NW 10 M ICP).

"Personally no, only because time tells me that could be either a very sick patient or the beginnings of, so that takes some sorting out to find out what's going on, or its going to be easily resolved so I'll be free within a quick period of time" (NW 14 F ICP).

"That person could have a major medical issue that be probably quite interesting compared to what the others are going to. It could be stroke, cardiac arrhythmias" (N 11 M ICP).

"Mental health cases are challenging because they are so variable and because obviously the mental health issues can be as I said, mad, sad or bad, there's that element, it could be all ages and there could be so many different variables with regard to what's happened before hand and how the patient is right then and how they might go on to be" (NW 8 M ICP).

5.1.5.7 Theme summary

Overwhelmingly, the paramedic participants reported that they would prefer to attend a road crash case as opposed to attending a patient with a mental illness presentation. The latter was seen to be unmotivating and less of a clinical challenge. Education and training was once again cited as a major factor influencing participants' preferences for attending the trauma case, as this was reported to be substantial in trauma management compared with mental health care and seen as a major influencer in preparedness for the paramedic. Trauma was reported to be the kind of case that paramedics were trained for and was perceived to garner admiration from fellow officers.

5.2 Phase two results

Thirty-three Ambulance Tasmanian (AT) paramedics accessed the online survey which represented a response rate of 11% of the paramedic workforce. Of these, 83% (n=28/33) of participants attempted the survey: (females n=16/28); (males n=12/28); (paramedics n=22/28) and (intensive care paramedics n=6/28) which represented an overall response rate of 9% of the paramedic workforce.

The regional distribution of participants was: (Northern region n=3/28); (North-Western region n=6/28) and (Southern region n=19/28). The breakdown for work setting was: (urban setting n=22/28) and (rural setting n=6/28). Four participants in phase two also participated in phase one of the research.

The low response rate occurred despite two follow up emails to all AT paramedics. This was disappointing, however at the time of the study, there were exceptional circumstances which may have impacted on participation rate. These will be discussed in detail in the limitations.

Table 7. represents the characteristics of participants for phase two. A slightly larger proportion of the sample were female. A significantly higher percentage of the sample were employed in the Southern region with the majority of the sample employed full-time as paramedics working in an urban setting.

Table 7. displays the phase two participant characteristics.

Variable (N=28)	N (%)
Sex	
Male	12 (42.9)
Female	16 (57.1)
Age (m±sd)	36.5 ± 11.0
Highest ambulance qualification	
Paramedic	22 (78.6)
Intensive care paramedic	6 (21.4)
Employment region	
Southern	19 (67.9)
North Western	6 (21.4)
Northern	3 (10.7)
Area working in	
Urban	22 (78.6)
Rural	6 (21.4)
Current employment status	
Full-time	23 (82.1)
Part-time	4 (14.3)

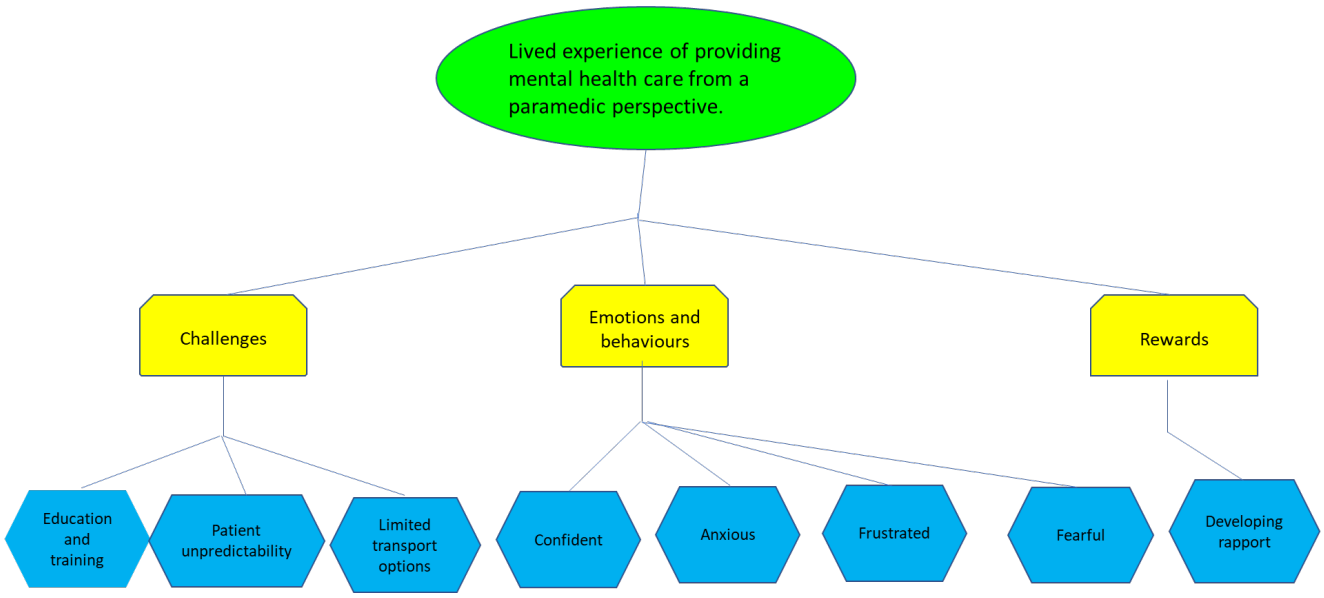
All values reported as numbers (N) and percentages (%) unless otherwise stated

m = mean, sd = standard deviation

5.2.1 Primary theme 1: Lived experience of providing mental health care from a paramedic perspective

Figure 6 below, is a diagrammatical representation of the themes and sub-themes. The primary theme explores the paramedic's lived experience of providing care to patients with mental illness. Three sub-themes emerged: 'challenges' which included a deficit of education and training, patient unpredictability and limited transport options for this patient group; 'emotions and behaviours'; exploring confidence, anxiety, frustration and fear and 'rewards' which included developing a rapport with the patient. The sub-themes of 'challenges', 'emotions and behaviours' and 'rewards', provide an example of what will be included in the narrative. Additional sub-themes will also be described under these headings.

Figure 6



To determine the factors that influence paramedics' experiences of providing care to a patient with mental illness, the participants were asked to respond to questions regarding perceived challenges and rewards. A total of 28 participants responded.

Table 8. represents responses to question asking if psychiatric cases are challenging (N=28).

Question 8: *Psychiatric cases are challenging*	Rarely N (%)	Sometimes N (%)	Often N (%)	Total N (%)
Region				
Southern	0 (0)	12 (63.2)	7 (36.8)	19 (100.0)
North Western	1 (16.7)	3 (50.0)	2 (33.3)	6 (100.0)
Northern	0 (0)	2 (66.7)	1 (33.3)	3 (100.0)
Sex				
Female	0 (0)	10 (62.5)	6 (37.5)	16 (100.0)
Male	1 (8.4)	7 (58.3)	4 (33.3)	12 (100.0)
Highest qualification				
Paramedic	0 (0)	14 (63.6)	8 (36.4)	22 (100.0)
Intensive care paramedic	1 (16.7)	3 (50.0)	2 (33.3)	6 (100.0)

5.2.1.1 Perceived challenges of psychiatric cases

The majority of participants found these cases challenging which was reflected in the qualitative responses. A slightly higher proportion of the sample finding the cases challenging were female paramedics, however Southern region had the highest proportion of both male and female participants reporting the cases as challenging.

There were no significant differences according to region (P=0.473), sex (P=0.671) and highest qualification (P=0.335).

A number of factors were reported to influence the findings that psychiatric cases were challenging. Not surprising, was the fact that the sample reported education and training had a significant influence over the view that cases attending to patients with mental illness were challenging for paramedics.

5.2.1.1.1 Challenges: education and training in mental health care

The participants reported a paucity of mental health education and training did not adequately prepare paramedics to be able to assess and manage patients with mental illness. With a response rate of 93% (n=26/28), 54% (n=14/26) of participants reported

they had only undertaken mental health education and training within the past two years or greater. A further 19% (n=5/26) of participants reported they had received mental health education and training within the past 12 months with a further 23% (n=6/26) within the past 6 months. One participant reported never undertaking any mental health education and training.

Recency of education and training was associated with the degree of challenge with 58% (n=15/26) of participants who had not undertaken any mental health education and training in the past 2 years or greater, reported providing care to patients with mental illness as challenging:

> *"Each psychiatric case is different and they need to be assessed on a case to case basis. We never have a clear picture of what we are going to and our mental health training is minimal"* (S 6 M P).
>
> *"I believe paramedics need more mental health training as we deal with a lot of mental health patients and they can be complex and unpredictable. I think as uni students they should do a placement at a mental health facility at the hospital or prison"* (S 6 M P).

Further to this, education and training in patient communication was seen to be a barrier to providing appropriate care:

> *"Due to the lack of education/training in being able to communicate effectively with these patients"* (NW 17 M P).
>
> *"Convincing the patient to come for further professional assessment when they think they don't need to"* (S 5 M ICP).
>
> *"You frequently find yourself struggling with what is the right thing to say to the patient"* (S 10 F ICP).

Moreover, the patient's past experiences with the care they received was seen to significantly impact the paramedic's ability to gain patient consent for transport to hospital:

"Communication can be difficult, I sometimes don't know what to say, the facilities we have for mental patients are totally inadequate and the RHH ED can do little to help people sometimes for chronic issues. It's hard when you and the patient both know that but you still have to take them against their will" (S 29 F P).

5.2.1.1.2 Challenges: unpredictable nature of mental health patients

Patient unpredictability was also reported to be influential in how challenging the participants find patients with mental illness:

"They are so unpredictable. We only have limited training in mental health and every case is so different to the next" (S 30 F P).

"I find some psychiatric patients threatening or aggressive and are often unpredictable, this makes working with these clients challenging" (N 18 F P).

"At times it can be difficult to manage behaviour, for example if they are violent, threatening, highly 'on edge' it can be stressful for me as a paramedic to know the best way to communicate with these patients and transport them safely. It never feels nice to have to chemically sedate and/or physically restrain a person" (S 3 F P).

"Genuine mentally ill people with acute psychosis, delusional thoughts or hallucinations can be unpredictable and challenging but these are very rare" (S 24 M P).

"These cases are so unpredictable. It is often hard to identify if other drugs are involved or the patient often doesn't or cannot tell you what they are diagnosed with so it is challenging" (S 30 F P).

When the participants were asked whether their education and training helped to alleviate the fear of violence associated with patients with mental illness, 54% (n=14/26) stated it had not helped, whilst a further 31% (n=8/26), were undecided. Only 23% (n=6/26), agreed that their education and training was helpful.

Of interest however, when the participants were asked to respond to the following question:

In your experience is it the case that patients with a diagnosed mental illness are more likely to become violent than patients who do not have a mental illness?

35% (n=8/26) of participants disagreed, claiming that patients under the influence of alcohol and or other drugs are more violent. It could be argued however, that people under the influence of alcohol and other drugs may also have a mental illness:

> *"Most violent Pts are usually on illicit drugs. These people tend to have poor socio-economic status and have a history of mental illness or friends with the same that leads them to this life style"* (S 19 M P).

> *"Drugs are worse... mind you they are mostly on the drugs to self-medicate their mental health issue"* (NW 20 F ICP).

> *"It is patients with mental health issues and patients under the influence of drugs/alcohol that are most likely to be violent"* (S 29 F P).

With a response rate of 23, 82% (n=19/23), participants reported they had felt threatened attending to a patient with a mental illness:

> *"They can be unpredictable and seeing as I'm the one enforcing transport or whatever it may be, I become the target of their angst and frustrations"* (S 29 F P).

> *"Pts affected by a mental illness have threatened me in the past. But this has been able to be dealt with by restraining the patient with help of Police"* (NW 9 M P).

> *"I have been verbally abused and threatened by patients with mental health problems"* (S 3 F P).

> *"Verbal abuse is so common it's basically normal from these patients, and I have been physically abused a few times as well"* (S 29 F P).

The threat of violence is not only associated with patients with mental illness, as patients with medical problems were also perceived to be unpredictable at times:

> *"I've experienced feeling threatened by both medical patients (eg dementia, brain tumour) and alcohol/drug affected people. I was punched in the chest a few times at the start of my career by a patient with brain tumours (he was not aware that he was doing it)"* (S 33 F P).

Patient aggression was also linked to paramedics' attitudes towards the patient with participants reporting that paramedic behaviours have resulted in an escalation of patient behaviour:

"Paramedics have to frequently and significantly adjust their behaviour to prevent incidents of violence to manage these patients, such as use approaches of extreme submission, more so than working with any other clients as these patients are often far less predictable and more dynamic" (N 18 F P).

"I have seen escalation of mental health patients as a result of paramedic attitudes. Paramedics can sometimes show annoyance towards these patients. Just the uniform can cause some patients to escalate" (S 33 F P).

"I think people are more likely to become violent if they don't feel they're being listened to or are being ridiculed in some manner" (S 31 F P).

A deficit of education and training in managing patients with mental illness has been linked to paramedic behaviours towards patients with mental illness. With a response rate of 22, 95% (n=21/22), participants reported an increased risk of violence from patients with mental illness due to the paramedic's lack of understanding and poor communication skills:

"No doubt our lack of knowledge and understanding regarding mental illness would not help the situation" (S 26 F P).

"when paramedics do not understand the associated behaviours or appropriate communication techniques they can get themselves in a position where the patient does not feel safe and therefore increases the potential for violence" (S 23 F P).

"paramedics with limited understanding or empathy for mental illness can often inflame an already 'unstable' patient causing them anxiety and frustration" (S 12 F P).

"Sometimes paramedics say the wrong thing. Lack of training" (NW 20 F ICP).

"Most paramedics use clear, professional, empathetic communication and listen well. Perhaps more a case of being ill equipped or a lack of education on the best methods of communications in common presenting crisis symptoms is more accurate a statement as patients with mental health illness are frequently triggered by unexpected things and communication styles" (N 18 F P).

To further explore the link between the patient becoming violent and the paramedics approach to the patient, the participants were asked to identify who they would prefer to be crewed with and why when attending to patients with a mental illness. With a response rate of 21, 43% (n=9/21), participants stated they would prefer to work with a

qualified paramedic. Clinical experience was the main reason given as to why working with an experienced paramedic was best option:

> *"Because most of paramedic training with mental health patients is on the job exposure. The more they are exposed to, generally the better the paramedic is at reading the patient*" (S 6 M P).

> *"They are more likely to understand the threats involved which helps keep everyone safe. Also, may be more experienced in good communication techniques"* (S 29 F P).

> *"Primarily an experienced paramedic, however I have known many recent grads who have vast life experience, are professional and polite and have been great receptive listeners for patients and who have had sound up-to-date knowledge of mental health conditions. In a violent situation however, hands down experienced paramedic"* (N 18 F P).

In addition to this however, 48% (n=10/21) of participants did not identify who their preferred working partner would be, however experience was seen as a potential detriment to appropriate patient care:

> *"Although I'm still very new to the job, I wouldn't mind working with any of the options listed but would probably least like to work with an experienced paramedic, as sometimes they can be jaded and treat mental health patients in ways that I don't think are appropriate or patient-centred"* (S 31 F P).

> *"Sometimes an experienced paramedic might not have the empathy or patience for mental illness or they may be a wealth of knowledge"* (S 12 F P).

A further 10% of participants (n=2/21) stated they would prefer to be partnered with a recently graduated paramedic. Educational preparedness and the fact that a new graduate may not have developed negative attitudes towards patients with mental illness were cited as reasons preferencing working with a new graduate:

> *"The newer staff have better training and tend to be more tolerant than some of the older ones"* (S 25 F ICP).

> *"Graduate paramedics may not have formed the cynicism of more experienced staff that can lead to increased risk of violence"* (S 7 M P).

5.2.1.1.3 Challenges: limited treatment and transport options

As previously reported, paramedics are 'problem finders and fixers'; they want to be able to use their clinical reasoning skills to identify the patient's presenting problem and treat appropriately. Patients with a mental illness are seen to be challenging as there is a perception that there is very little a paramedic can do to fix the patient's problem. With a response rate of 21, overwhelmingly 76% (n=16/21) of participants agreed that paramedic culture is about identifying a problem and fixing it:

> *"It is generally not that exciting-"jump in the ambulance mate, we'll give you a lift to hospital"* (N 2 M P).
>
> *"We can do very little to help these people, all we can do is take them to ED and often they get very little help there also. Community based care is often too little and takes too long"* (S 29 F P).
>
> *"Often, if a patient is feeling depressed or suicidal, it is difficult to feel like there's anything you can do or say for the patient that is of benefit. Whilst you can be compassionate in actions and conversation, there are no ways we can really 'treat' or 'address' the problem, such as how we can with a patient experiencing chest pain for example. This can feel somewhat frustrating and more selfishly it gives me as a paramedic less gratification from my job"* (S 3 F P).
>
> *"At times if there is no clear diagnosis and pts are experiencing an acute episode. Different mental illnesses require different approaches as do different patients. To evaluate the patient's needs in a short period of time can be challenging"* (S 12 F P).
>
> *"Don't know how to help them"* (S 21 M P).

Limited transport options for patients with mental illness was seen as a significant challenge. Paramedics felt frustrated that the health care system was not supportive of patients with mental illness, as this often led to patient re-presentations:

> *"My main frustration is the numerous re-presentations of mental health patients due to a lack of resources at the hospital and in the community. It is frustrating because I don't feel like I am able to really help these people, we're just another cog in the wheel"* (S 33 F P).
>
> *"I think as a state we need to have more options for mental health treatments and facilities. As previously mentioned, there are limited avenues paramedics can utilise to*

help mental health patients in Tasmania. They all get taken to emergency, some left in the waiting room where they can leave at will" (S 6 M P).

"We have very few referral rights and end up leaving a patient in need in an over-crowded hospital which will either dismiss them as not acute or critical enough to require a bed or adds to their anxiety and issues because they are left waiting in busy, noisy conditions. Calling out the CATT team has never in my opinion helped the patient as they have always (in instances I have had them on scene or tried to utilise them) relied on us to talk to the patient and manage them, or they won't consider a community visit if the patient isn't already on 'the books' (S 12 F P).

"Frustrated because it would seem that there isn't the kind of support you'd ideally like in place for these patients when you see them again and again for the same reasons" (S 31 F P).

"I am not frustrated with the patient. If anything, I get frustrated with the health system and lack of adequate mental health resources and my lack of training to help" (S 26 F P).

"Frustrated that there is not an AH service for these people. The only place to go is the RHH" (S 25 F ICP).

"My frustration comes from lack of community support for mental health, insufficient and in my opinion, ineffective emergency mental health support. In addition to this the RHH is often stretched to and beyond capacity and are likely to discharge a patient who provides the right answers despite the patient having agreed to come to hospital because they clearly need support they are not receiving anywhere else. This means patients often give up on the system" (S 12 F P).

5.2.1.2 Perceived rewards of psychiatric cases

Table 9. represents responses to question asking if psychiatric cases are rewarding (N=27)

Question 10: *Psychiatric cases are rewarding*	Rarely N (%)	Sometimes N (%)	Often N (%)	Total N (%)
Region				
Southern	8 (44.4)	8 (44.4)	2 (11.2)	18 (100.0)
North Western	2 (33.3)	3 (50.0)	1 (16.7)	6 (100.0)
Northern	2 (66.7)	1 (33.3)	0 (0)	3 (100.0)
Sex				
Female	8 (50.0)	7 (43.8)	1 (6.2)	16 (100.0)
Male	4 (36.4)	5 (45.4)	2 (18.2)	11 (100.0)
Highest qualification				
Paramedic	10 (47.6)	9 (42.9)	2 (9.5)	21 (100.0)

Intensive care paramedic	2 (33.3)	3 (50.0)	1 (16.7)	6 (100.0)

With a response rate of 27, overwhelmingly, 96.2% (n=26/27) of participants reported that cases attending to patients with mental illness were rarely rewarding or only sometimes rewarding. In contrast however, only 11.1% (n=3/27) of the sample found these cases rewarding. The majority of the sample reporting cases attending to patients with mental illness rarely rewarding were employed in the Southern region. Additionally, female participants were less likely to find cases attending to patients with mental illness rewarding, compared with the male sample.

There were no significant differences according to region (P=1.00), sex (P=0.645) and highest qualification (P=0.836).

5.2.1.2.1 Developing a rapport and gaining the patient's trust

This was seen to be important with regard to patient treatment and transport for ongoing care:

> *"I find them rewarding when I can develop a rapport with the patient and I feel like I have had a positive impact on their current condition. This doesn't happen very often due to the severity and type of mental health problem the person is experiencing"* (S 33 F P).
>
> *"Gaining the patient's trust and having them agree to be transported for further assessment"* (*S* 8 M ICP).
>
> *"I feel fairly comfortable in meeting/building rapport and assessing patients with psychiatric problems"* (N 27 F P).
>
> *"When I am able to help the patient feel that there is hope and help available"* (S 26 F P).

Central to the reasons given for why cases attending to patients with mental illness were rarely perceived as rewarding, was the limited treatment and transport options previously identified:

"There is very little that we can do to help them. Usually we are just a means of transport. You are often going against the patient's wishes. There is often drugs or alcohol involved" (S 10 F ICP).

"Patients often express reluctance to attend ED due to feeling like they are shoved in a corner, talked to, then sent home with nil outcome. It is difficult to provide the patient with positive reasons to attend ED when you have frequently witnessed this to be the case. It feels as though there is no appropriate place to be taking mental health patients, or other management strategies in place" (NW 15 F P).

"We only really have the time to do 'quick fix' cases. Often there are other patients waiting and quite often these cases take a lengthy amount of time. Would be great to offer them more than just a trip to hospital, which is not the most appropriate place for these people" (S 25 F ICP).

"I can only really offer transport and feel like the health system doesn't really offer them any solutions" (S 21 M P).

As previously reported, the potential risk of violence was also influential in mental health cases found to be less rewarding.

5.2.1.3 Theme summary

Overwhelmingly, mental health cases were reported to be challenging for the paramedic participants. Education and training was reported to be central to developing knowledge, skills and practices to effectively manage patients with a mental illness, however this was lacking. Communication was reported to be a fundamental tenet of patient history, however a deficit of education and training resulted in paramedics often grappling with what to say and what not to say to their patients. Patient unpredictability, further influenced the challenges of managing patients with mental illness which was also linked back to a lack of education and training.

The lack of appropriate care facilities and transport options for patients with mental illness was a significant challenge as it meant that the only option for the majority of these patients was the ED which was reported to be unsuitable by paramedics, ED

staff and the patient. This also resulted in patients re-presenting to paramedics as their health care needs had not been met by the services offered.

The perceived rewards of providing care to patients with mental illness were minimal, with developing a rapport with the patient and gaining the patients trust, the only influencers reported.

5.2.2 Emotions and behaviours

The participants were asked to identify if they felt confident, anxious, frustrated or fearful when attending to patients with mental illness presentations.

A higher proportion of the sample reported decreased confidence levels which was reflected in the qualitative responses. The participants reported higher levels of anxiety and frustration, however the majority did not feel fearful which was surprising because patient unpredictability was reported to be a significant challenge.

Table 10 represents responses to question about feeling confident when attending psychiatric cases (N=26)

Question 14: *Confident in attending mental health cases*	Agree N (%)	Undecided N (%)	Disagree N (%)	Total N (%)
Region				
Southern	3 (17.6)	6 (35.3)	8 (47.1)	17 (100.0)
North Western	3 (50.0)	1 (16.7)	2 (33.3)	6 (100.0)
Northern	2 (66.7)	0 (0)	1 (33.3)	3 (100.0)
Sex				
Female	3 (18.8)	5 (31.2)	8 (50.0)	16 (100.0)
Male	5 (50.0)	2 (20.0)	3 (30.0)	10 (100.0)
Highest qualification				
Paramedic	6 (28.6)	6 (28.6)	9 (42.8)	21 (100.0)
Intensive care paramedic	2 (40.0)	1 (20.0)	2 (40.0)	5 (100.0)

A significantly higher proportion of the sample reported feeling unconfident when attending patients with mental illness, compared with the number of participants who were confident. Female paramedics reported lower levels of confidence compared with

their male counterparts, whilst paramedics employed in the Southern region reported lower levels of confidence compared with paramedics from the North Western and Northern regions.

There were no significant differences according to region (P=0.390), sex (P=0.308) and highest qualification (P=1.0).

A lack of training opportunities, limited available treatment options, the potential effects of alcohol and other drugs, as well as pressures to decrease on scene times resulting in inadequate patient care opportunities, were factors that influenced decreased confidence levels:

> *"Not enough practice, every patient is different, you don't get to spend enough time to properly build and cement report and trust (there's pressure for short scene times), you don't often get a full history, it's almost impossible to get feedback or any object measure of the impact of what you've done"* (S 31 F P).
>
> *"Mental health patients are very dynamic and often their presenting affect is also affected by alcohol or drugs. I do not feel that I have personally received enough training in regards to communication and de-escalation techniques to be comfortable helping these patients"* (NW 15 F P).

The participants reported higher levels of anxiety and frustration when called to assist patients with mental illness.

Table 11 represents responses to question about feeling anxious when attending psychiatric cases (N=25)

Question 16: *Anxious when attending mental health cases*	Agree N (%)	Undecided N (%)	Disagree N (%)	Total N (%)
Region				
Southern	8 (50.0)	3 (18.8)	5 (31.2)	16
North Western	3 (50.0)	2 (33.3)	1 (16.7)	6
Northern	1 (33.3)	0 (0)	2(66.7)	3
Sex				
Female	9 (60.0)	2 (13.3)	4 (26.7)	15
Male	3 (30.0)	3 (30.0)	4 (40.0)	10
Highest qualification				

Paramedic	9 (45.0)	4 (20.0)	7 (35.0)	20
Intensive care paramedic	3 (60.0)	1 (20.0)	1 (20.0)	5

Females were more likely to report feeling anxious when attending patients with mental illness cases compared with their male counterparts, whilst paramedics employed in the Southern and North Western regions were more likely to report anxiety compared with paramedics working in the Northern region.

There were no significant differences according to region (P=0.723), sex (P=0.363) and highest qualification (P=0.826).

Factors seen to influence feelings of anxiety were reported as a lack of education and training, the unpredictable nature of patients, transport limitations as well as a lack of empathy from some paramedics resulting in an escalation in patient aggression:

> *"Factors that cause anxiety for me include; time of day, suburb, previous knowledge of patient, working with colleagues who lack empathy and escalate situations and patients showing aggression after commencing transport to hospital within the confined space of the back of the ambulance"* (S 33 F P).
>
> *"These cases are so unpredictable. It is often hard to identify if other drugs are involved or the patient often doesn't or cannot tell you what they are diagnosed with so it is challenging"* (S 30 F P).
>
> *"They can be unpredictable and annoyed by the fact I may have to transport against their will"* (S 29 F P).

Table 12 represents responses to question about feeling frustrated when attending psychiatric cases (N=26).

Question 18: *Frustrated when attending mental health cases*	Agree N (%)	Undecided N (%)	Disagree N (%)	Total N (%)
Region				
Southern	11 (64.8)	3 (17.6)	3 (17.6)	17 (100.0)
North Western	0 (0)	2 (33.3)	4 (66.7)	6 (100.0)
Northern	0 (0)	3 (100.0)	0 (0)	3 (100.0)
Sex				

Female	8 (50.0)	5 (31.3)	3 (18.7)	16 (100.0)
Male	3 (30.0)	3 (30.0)	4 (40.0)	10 (100.0)
Highest qualification				
Paramedic	9 (42.8)	6 (28.6)	6 (28.6)	21 (100.0)
Intensive care paramedic	2 (40.0)	2 (40.0)	1 (20.0)	5 (100.0)

A significantly higher proportion of the sample employed in the Southern region reported feelings of frustration when attending to patients with mental illnesses. This is in comparison to their North Western and Northern counterparts who did not report feelings of frustration with North Western participants reporting a higher percentage of no frustration and Northern participants undecided.

A significant difference according to region (P=0.001) however, was that there were no significant differences according to sex (P=0.523), and highest qualification (P=1.0).

A paucity of health care resources and treatment options leading to patient re-presentations were the main factors contributing to feelings of frustration:

> *"Because for the most part we can't direct them to appropriate care"* (S 6 M P).
>
> *"I feel that we often work really hard to get mental health patients to hospital, only to have the psychiatric nurses be rude to the patients and upset them. Creating a distrust in the service"* (S 10 F ICP).
>
> *"Lack of options to offer patients. Lack of faith in the system to support their needs"* (S 12 F P).
>
> *"My main frustration is the numerous re-presentations of mental health patients due to lack of resources at the hospital and in the community. It is frustrating because I don't feel like I am able to really help these people, we're just another cog in the wheel"* (S 33 F P).

An interesting find was that the majority of participants did not feel fearful which was surprising because patient unpredictability was reported significantly challenging.

Table 13 represents responses to question about feeling fearful when attending psychiatric cases (N=26).

Question 20: *Fearful when attending mental health cases*	Agree N (%)	Undecided N (%)	Disagree N (%)	Total N (%)
Region				
Southern	3 (17.7)	4 (23.5)	10 (58.8)	17 (100.0)
North Western	0 (0)	3 (50.0)	3 (50.0)	6 (100.0)
Northern	1 (33.3)	1 (33.3)	1 (33.3)	3 (100.0)
Sex				
Female	3 (18.7)	6 (37.5)	7 (43.8)	16 (100.0)
Male	1 (10.0)	2 (20.0)	7 (70.0)	10 (100.0)
Highest qualification				
Paramedic	3 (14.3)	7 (33.3)	11 (52.4)	21(100.0)
Intensive care paramedic	1 (20.0)	1 (20.0)	3 (60.0)	5 (100.0)

The findings here were surprising as the participants have previously reported patient un-predictability and the fear of violence poses significant challenges when called to assist patients with mental illness. Whilst the threat of violence was recognised, the ability to maintain a degree of safety resulting in a decrease in fear, was reported by the sample.

There were no significant differences according to region (P=0.582), sex (P=0.467) and highest qualification (P=1.0):

> *"I generally have police on scene"* (N 2 M P).
>
> *"I am hyper-vigilant when attending patients with psychiatric problems (more so compared to other patients); however, I am not fearful as I take appropriate steps to ensure scene safety"* (S 7 M P).
>
> *"No hesitation to remove self from seething/unpredictable/volatile patient or scene"* (S F 14 P).
>
> *"Depends on the patient. I try to prevent feeling this way by having help if I need it (police, another crew) if I am fearful of our safety"* (S 29 F P).

5.2.3 Theme summary

A lack of confidence and increased levels of anxiety when attending cases to patients with a mental illness are common in paramedic practice. This was reported more in the female sample. The participants cited reasons previously discussed such as poor education and training and patient unpredictability as significant in developing these emotions. Of interest however, was given these feelings, the majority of the sample reported that they were not fearful when attending cases to patients with mental illness. The lack of transport options resulted in high levels of frustration for paramedics.

5.2.3.1 Primary theme 2: Stigma towards patients with mental illness embedded in paramedic culture

Figure 7 below, is a diagrammatical representation of the themes and sub-themes. The primary theme explores the concept of stigma embedded within paramedic culture. Two sub-themes emerged: 'how is stigma displayed'?, considering both verbal and nonverbal approaches and 'what informs stigma'? such as patients who re-present to paramedic services often and the perception of violence.

Figure 7

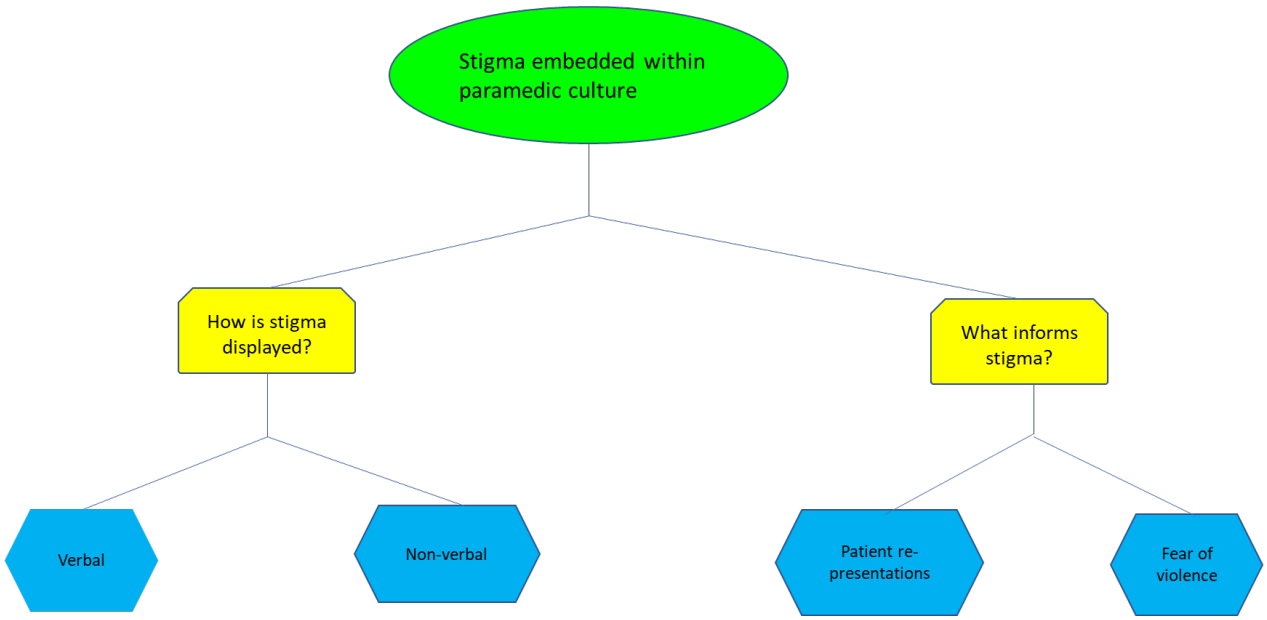


Table 14 represents responses to question about stigma (N=21).

Question 43: *Stigma towards patients with mental illness*	Rarely N (%)	Sometimes N (%)	Often N (%)	Total N (%)
Region				
Southern	2 (13.3)	6 (40.0)	7 (46.7)	15 (100.0)
North Western	1 (25.0)	3 (75.0)	0 (0)	4 (100.0)
Northern	1 (50.0)	0 (0)	1 (50.0)	2 (100.0)
Sex				
Female	1 (8.4)	7 (58.3)	4 (33.3)	12 (100.0)
Male	3 (33.3)	2 (22.2)	4 (44.4)	9 (100.0)
Highest qualification				
Paramedic	3 (17.6)	6 (35.3)	8 (47.1)	17 (100.0)
Intensive care paramedic	1 (25.0)	3 (75.0)	0 (0)	4 (100.0)

With a total of 80.8%, (n=17/21) the results overwhelmingly report that stigma towards patients with mental illness is prevalent within paramedic culture. Female participants report higher instances of stigma compared with the male sample, with paramedics employed in the Southern region reporting a higher proportion of patients are stigmatised against compared with those who rarely see any stigma. Of interest was the fact that the percentage of ICPs reporting stigma often occurred was zero, compared with 47% of paramedics.

There were no significant differences according to region (P=0.179), sex (P=0.231) and highest qualification (P=0.202).

The participants were asked to describe how stigma was demonstrated towards patients with mental illness.

Table 15 proportions of responses to question about displays of stigma

Question 44	N (%)
How is stigma demonstrated	N=21
Non-verbal (eye rolling)	N=6 (28.6)
Verbal denouncement	N=4 (19.1)
Derogatory terms used	N=7 (33.3)
Unsure	N=3 (14.3)
No stigma	N=1 (4.7)

Patients with mental illnesses were reported to be attention seekers and seen to waste the time paramedics could be attending to perceived 'more warranted' patients. Displays of stigma included both verbal and non-verbal actions:

> *"I believe paramedics divide mental health patients into two categories. A patient who is having a psychiatric episode and maybe a patient that is depressed and self-harms and may state they wanted to kill themselves by taking a couple of diazepam and 2-3 Panadol. I believe a lot of paramedics get fed up with the latter as it is seen every shift and the emergency department is not generally the most appropriate place of care"* (S 6 M P).

> *"Only those who are regulars who are known to be violent toward health staff when they are not suffering a crisis but rather are attention seeking on that occasion. Those individuals have received a stigma secondary to their behaviour when they are not having an actual mental health crisis"* (N18 F P).

5.2.3.2 Verbal and non-verbal actions

> *"Attention seekers, time wasters, dole bludgers etc. Sometimes there is a perception that patients with mental health issues are putting it on to milk the system or are simply attention seeking. Comments are often heard about people who self-harm, 'just attention seeking, never seriously hurt themselves, if they were serious, they would do it right' and so on"* (S 12 F P).

> *"Most staff are able to maintain professionalism when dealing with patients with psychiatric issues; however, poor body language is highly evident in many of these cases"* (S 7 M P).

> *"Disrespectful comments are made by several colleagues around me, in particular when a 'regular' appears on the pager"* (S 33 F P).

> *"People often read the pager message and make derogatory comments about the type of case we are going to"* (S 29 F P).

> *"I have heard people using terms like 'nut job' and 'schitzo' in a patient description to students!"* (S 23 F P).

> *"Nutter, psycho, nuffnuff"* (NW 20 F ICP).

5.2.3.3 What informs stigma

Patient re-presentations and a fear of violence from patients with mental illness were factors seen to inform stigma.

5.2.3.4 Patient re-presentations

Paramedics were frustrated at the number of patients with mental illness who re-present with the same problem. Further to this, is the fact that often paramedics feel helpless in their abilities to assist these patients and additionally believe the health system as a whole is inadequate when it comes to providing care to patients with a mental illness:

> *"Frequent Flyers.....those pts who regularly call ambulances can test the patience of some paramedics"* (S 8 M ICP).
>
> *"Frequent presenting Pts for non-compliant reasons, causes frustration and apathy. Some Pts don't care what they are doing and don't demonstrate that they want to get better and are happy to be a burden on society. These are the minority but they still exist"* (S 19 M P).
>
> *"Most of it is frustration as we have no real service to offer them with our skill set or where we can transport them"* (S 29 F ICP).
>
> *"Repeat attendance at patients is difficult for some paramedics, they fail to appreciate that the person needs help but see them as attention seeking and not worth their help"* (NW 11 M ICP).

5.2.3.5 Mental health patients instil fear

The fear of violence potentially leads to the labelling of all patients with mental illness as unpredictable and aggressive in nature:

> *"I believe, in the pre-hospital field, you should NEVER turn you back or let your guard down with an MH Pt. I have had a knife pulled on me in the back of an ambulance in Qld and that changes you and your expectations of these Pts.. If you approach MH Pts with the view that all of them can be violent and you need to be prepared for this then the fear is replaced with skills of observation, anticipation and de-escalation from the outset"* (S 19 M P).

"I generally have police on scene" (N 2 M P).

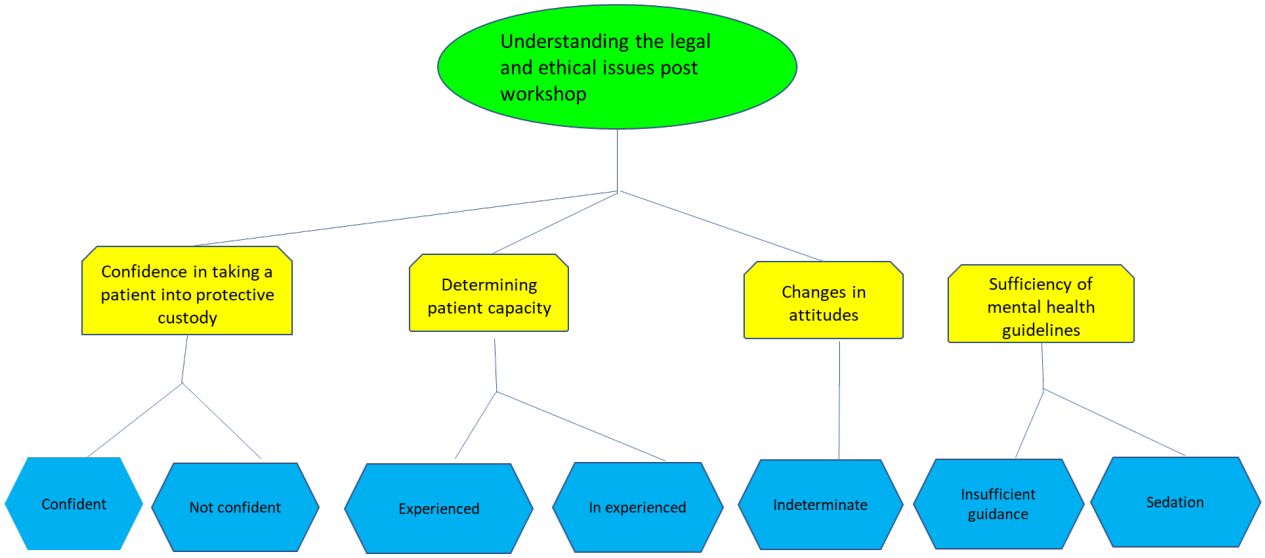
5.2.3.6 Theme summary

Paramedics display stigmatising behaviours towards patients with mental illness. A fear of violence and patient unpredictability as well as patients who re-present to paramedics for the same problem because the inadequacies of the health care system mean they do not receive adequate care, are both influential in developing these negative attitudes and behaviours. Stigma is reported to be displayed through words and terms used to describe patients with a mental illness and additionally through poor body language.

5.2.4 Primary theme 3: Understanding the legal and ethical issues pertaining to mental health care: post workshop

Figure 8 below, is a diagrammatical representation of the themes and sub-themes. The primary theme is 'understanding the legal and ethical issues pertaining to mental health care: post workshop'. Four sub-themes emerged: 'confidence in taking a patient into protective custody', are paramedics confident or not; 'determining patient capacity', do paramedics have the experience to do this; 'changes in attitudes', post training and 'sufficiency of mental health guidelines', exploring new guidelines in mental health care and the adequacy of these.

Figure 8



In February 2014, the Tasmanian mental health legislation was changed. The new legislation, known as the *Mental Health Act 2013,* transformed paramedic care for patients with mental illness by giving paramedics as Mental Health Officers (MHO), the authority to take patients into protective custody if the patient was believed to have a mental illness and it was deemed they were at risk to self or others. To determine whether paramedics are confident in their ability to take a patient into protective custody, the participants were asked to respond to the following question:

Section 17 of the Mental Health Act 2013 states "a MHO (including paramedics) or police officer may take a person into protective custody if the MHO or police officer reasonably believes that the person has a "mental illness" and requires further assessment and is deemed to be a risk to self or others. Are you confident you have the knowledge and skills to take a patient into protective custody based on the requirements above?

Table 16 represents responses to question about confidence in taking a patient into protective custody (N=21)

Question 48: *Confident in taking patients into protective custody*	Yes N (%)	Other N (%)	No N (%)	Total N (%)

Region				
Southern	11 (73.3)	3 (20.0)	1 (6.6)	15 (100.0)
North Western	3 (75.0)	0 (0)	1 (25.0)	4 (100.0)
Northern	2 (100.0)	0 (0)	0 (0)	2 (100.0)
Sex				
Female	8 (66.6)	2 (16.7)	2 (16.7)	12 (100.0)
Male	8 (88.8)	1 (11.2)	0 (0)	9 (100.0)
Highest qualification				
Paramedic	13 (76.4)	3 (17.7)	1 (5.9)	17 (100.0)
Intensive care paramedic	3 (75.0)	0 (0)	1 (25.0)	4 (100.0)

Overwhelmingly 76.1%, (n=16/21) of the sample reported they were confident when required to take a patient into protective custody. The confidence levels were reflected across all three regions and equally distributed between female and male participants.

There were no significant differences according to region (P=0.857), sex (P=0.710) and highest qualification (P=0.555).

Education and training as well as experience were reasons cited as to why participants were confident in their knowledge and skills to take patients into protective custody:

> *"I have received good clear training on this however are aware of peers who have not"* (N 18 F P).
>
> *"I have had training and experience for this"* (S 19 M P).
>
> *"I have done the recent training"* (S 25 F ICP).
>
> *"I have put several patients into protective custody. I believe in these instances most paramedics are able to identify a patient who is behaving irrationally and is a danger to themselves or others"* (S 6 M P).
>
> *"Have done so many times"* (S 23 F P).
>
> *"I have done this on multiple occasions"* (S 29 F P).

Despite the majority of participants claiming their education and training was sufficient, concerns were raised regarding access to ongoing education and training and given that there was a requirement under the *Act* that this occurred every 12 months, the concerns raised were legitimate:

> *"I am confident to a degree but I feel that regular training should be occurring to remain fresh. The initial training should not be delivered and then a person is competent. Training needs to evolve, we can always learn more and find ways to do things better"* (S 33 F P).

The participants who were undecided in their confidence levels, claimed paramedics often do not have access to the patients past medical and mental health history. As previously stated, *Section 17 of the Mental Health Act 2013,* states patients can be taken into protective custody if a MHO believes that they have a mental illness (Tasmanian Government, 2014). Given that this information is not always available to paramedics, this has been seen to create confusion and indecisiveness regarding the transport of involuntary patients:

> *"MHO reasonably believes that the person has a mental illness". I find the wording and subsequent interpretation of the above extract to be highly confusing. It is nearly impossible for paramedics to accurately ascertain if a patient has a mental illness within the field. Without access to medical records, the above interpretation is highly subjective. I have argued with hospital staff that a patient presenting with poly-pharmacy overdose meets these criteria; only to have my protective custody order dismissed based on the fact that the patient had no record of mental illness. How are we to accurately ascertain a history of mental illness within minutes of interaction and not falsely imprison patients?"* (S 7 M P).

Further to this, concerns were raised regarding the appropriateness of undertaking a patient search and the effect this had on confidence levels:

> *"At times yes. But most cases are not black and white. I for instance don't feel confident to conduct searches as trained and believe police should be present or be taking the patient if there is a possible risk. I also believe there is a risk of taking a patient into protective custody based on limited information and causing more distress and anxiety for the patient"* (S 12 F P).

To further explore participants' understanding of mental illness, they were asked to respond to the following question:

What is your understanding of the term 'mental illness'?

With a response rate of 90% (n=19), 42% (n=9) of respondents identified patients displaying impaired thought processes was a crucial feature in mental illness:

> *"Patient experiencing impaired thought processes, moods or cognition either temporarily or continually"* (*S* 12 F P).
>
> *"I believe a mental health condition is any condition that affect a person's thought process in a negative way or a way they are unable to control themselves"* (S 7 M P).
>
> *"Any condition that alters the patient's perception of right and wrong I suppose"* (S 8 M ICP).

Further to this, 19% (n=4/21) of participants define 'mental illness' as a diagnosed condition:

> *"It relates to a person's state of mind, how they are feeling and thinking and behaving due to a diagnosis or a condition which interrupts or affects those thought/mental processes"* (S 5 F P).
>
> *"A medical condition affecting a person's perceptions and behaviour"* (S 21 M P).
>
> *"A diagnosable illness or disorder that interferes with one's emotional, cognitive or social wellbeing"* (N 18 F P).
>
> *"A person who has a diagnosed mental illness or a person who I reasonably believe has a mental illness. I am not required to make a diagnosis"* (NW 11 M ICP).
>
> *"Taking someone into protective custody under the act should be done when you believe they may have a mental illness and this is causing them to be a harm to themselves or others. The mental illness can be a range of different conditions (e.g. depression, bipolar, schizophrenia) which is currently affecting their judgment and impairing their insight"* (S 29 F P).

A further 9.0% (n=2/21) of participants stated that mental illness was not always a diagnosed condition, however reported a lack of decision-making capacity was important when identifying patients with mental illness:

> *"The term relates to both diagnosed and non-diagnosed mental illness presentations. It doesn't necessarily mean a person is unaware of their current mental status. Their decision-making capacity is altered with regards to their actions and thoughts. This does not mean they are at risk of harm to themselves or others but it is up to us to try*

and determine if they are and whether we should then enforce Section 17 if a patient is non-compliant (whether they are aware or not)" (S 33 F P).

Determining whether a patient has legal capacity to refuse care can be challenging for paramedics. To ascertain whether paramedics feel they have the knowledge and skills to do this, the participants were asked to respond to the following question:

Section 25 of the Mental Health Act 2013 states a person must be considered to not have "decision-making capacity" when taken into protective custody. Whilst paramedics are not required to determine whether a patient has the capacity to refuse care and transport under the Mental Health Act 2013, there are other situations where a patient will refuse care. In your opinion do paramedics have the skills to determine a patient's capacity to refuse care?

Table 17 represents responses to question about determining a patient's capacity (N=19).

Question 53: *Do paramedics have skills to determine a patient's capacity to refuse care*	N	Rarely N (%)	Sometimes N (%)	Often N (%)	Total N (%)
Region					
Southern	13(75.0)	1 (7.7)	7 (53.8)	5 (38.5)	13 (100.0)
North Western	4 (20.0)	1 (25.0)	0 (0)	3 (75.0)	4 (100.0)
Northern	2 (10.0)	0 (0)	2 (100.0)	0 (0)	2 (100.0)
Sex					
Female	12 (63.2)	2 (16.7)	6 (50.0)	4 (33.3)	12 (100.0)
Male	7 (36.8)	0 (0)	3 (42.9)	4 (57.1)	7 (100.0)
Highest qualification					
Paramedic	15 (78.9)	1 (6.7)	8 (53.3)	7 (40.0)	15 (100.0)
Intensive care paramedic	4 (20.0)	1 (25.0)	1 (25.0)	2 (50.0)	4 (100.0)

There were no significant differences according to region (P=0.144), sex (P=0.533) and highest qualification (P=0.418).

Despite the majority of participants reporting that paramedics do have the skills to determine a patient's capacity to varying degrees, a paucity of education and training in this area was identified:

> *"Education in the intricacies of mental illnesses is limited for paramedics and therefore we often use subjective interpretation of capacity irrespective of the presenting condition"* (S 7 M P).
>
> *"I think given the brief period given to make a decision on someone's capacity to refuse care or make any kind of decision, I don't feel confident that we truly have the skills"* (S 12 F P).
>
> *"This definitely requires more training"* (NW 20 F ICP).
>
> *"Not enough training"* (S 26 F P).
>
> *"It depends on the paramedic's specific experience and understanding. It's hard to know if some patients have capacity as they can be very good actors and we don't know their previous history"* (S 29 F P).
>
> *"This is based on how skilled the individual paramedic is, their level of experience and how thorough they want to assess somebody"* (S 33 F P).
>
> *"Paramedics generally have a good idea"* (S 25 F ICP).

One participant identified that paramedics may make decisions about patient capacity based on potential consequences if the decision they make is incorrect:

> *"I think we have the skills, but I don't know that we are very good at using them! I think there's a lot of concern about 'covering your arse', which might make paramedics less willing to allow a patient to refuse aspects of care if their capacity to make other, bigger, decisions is impaired"* (S 31 F P).

With a response rate of 95% (n=20/21), the participants differed with their responses to the following question:

Is it your opinion that in the past two and a half years since the change in mental health legislation, there been a change in paramedic attitudes towards patients with mental illness?

Table 18 represents responses to question about changes in attitude post legislative changes (N=21).

Question 55: *Have paramedic attitudes changed post implementation of new mental health legislation?*	Agree N (%)	Undecided N (%)	Disagree N (%)	Total N (%)
Region				
Southern	2 (13.3)	10 (66.7)	3 (20.0)	15 (100.0)
North Western	1 (25.0)	3(75.0)	0 (0)	4 (100.0)
Northern	0 (0)	2 (100.0)	0 (0)	2 (100.0)
Sex				
Female	3 (25.0)	8 (66.7)	1 (8.3)	12 (100.0)
Male	0 (0)	7 (77.8)	2 (22.2)	9 (100.0)
Highest qualification				
Paramedic	2 (11.8)	12 (70.6)	3 (17.6)	17 (100.0)
Intensive care paramedic	1 (25.0)	3 (75.0)	0 (0)	4 (100.0)

Whilst there was an even distribution of the sample reporting that attitudes had or had not changed, the majority were undecided.

There were no significant differences according to region (P=1.0), sex (P=0.405) and highest qualification (P=1.0).

Employment within the past two years as well as working as a single response officer were cited as reasons for being undecided:

> *"I haven't been around long enough to comment on whether attitudes have changed since the legislation changed"* (S 33 F P).
>
> *"I haven't been around for 2.5 years so can't really comment on the change. I suspect it has for some, others seem to be pretty stigmatised"* (S 31 F P).
>
> *"I was not a paramedic when it changed"* (S 28 M P).
>
> *"Have not worked with other officers enough to form an accurate opinion"* (S 25 F ICP).
>
> *"I don't work with other paramedics so can't comment"* (S 8 M ICP).

Further to this, an increase in legal responsibilities has been linked to changed attitudes:

> *"Paramedics are now taking more responsibility towards working with mental health patients when previously they might have been seen as a "police" job"* (S 3 F P).
>
> *"It has made it easier for us to protect ourselves and patients"* (N 18 F P).
>
> *"I believe that paramedics have always managed these patients in the same way as we do now. The only difference is that we have a legal framework to make the decisions that we have always made"* (S 7 M P).

Community awareness about mental health issues was also seen to influence a change in attitudes:

> *"Slowly. As there is also much more focus on mental health and well-being of paramedics and it is much more accepted to acknowledge our own mental health issues, I believe there is a greater emphasis on mental health in general and more public education which contributes to a change in attitudes"* (S 12 F P).

As previously mentioned, changes in attitudes towards patients with mental illness was not seen in some instances:

> *"I don't think anything has changed from a paramedic perspective other than we now have to fill out paper work*" (S 6 M P).
>
> *"I haven't seen any change"* (S 29 F P).

Along with the legal framework provided by the *Mental Health Act 2013, p*aramedics are also required to practice within their own state protocols and guidelines. Ambulance Tasmania Clinical Practice Guidelines (CPGs) for paramedics (P) and intensive care paramedics (ICP) provides a framework to guide Ps and ICPs to deliver evidenced based care within their scope of practice (Ambulance Tasmania, 2012).

To determine whether paramedics felt the mental health CPG provided enough guidance and support, the participants were asked to respond to the following question: *In your opinion does the Mental Health CPG A0708(b) provide enough guidance for paramedics to adequately assess and manage a patient with mental illness?*

Table 19 represents responses to question about sufficiency of the mental health guideline (N=20).

Question 57: *Does CPG A0708(b) provide enough guidance?*	Agree N (%)	Undecided N (%)	Disagree N (%)	Total N (%)
Region				
Southern	4 (28.6)	3 (21.4)	7 (50.0)	14 (100.0)
North Western	1 (25.0)	0 (0)	3 (75.0)	4 (100.0)
Northern	1 (50.0)	0 (0)	1 (50.0)	2 (100.0)
Sex				
Female	2 (18.2)	1 (9.1)	8 (72.7)	11 (100.0)
Male	4 (44.4)	2 (22.2)	3 (33.4)	9 (100.0)
Highest qualification				
Paramedic	5 (31.3)	2 (12.4)	9 (56.3)	16 (100.0)
Intensive care paramedic	1 (25.0)	1 (25.0)	2 (50.0)	4 (100.0)

There were no significant differences according to region (P=0.923), sex (P=0.277) and highest qualification (P=1.0).

A significantly high percentage of the sample did not find CPG A0708(b) provided adequate support and advice for paramedics to be able to assess and manage patients with mental illness. This result was reflected across all regions, however females were more likely to disagree than males who had a slightly higher percentage reporting CPG A0708(b) was adequate:

> *"Ambulance Tasmania CPGs are extremely limited relating to every condition. We need more information regarding aetiology, pathophysiology, clinical presentation and management of specific mental illnesses. It is naïve to combine all mental illnesses into one CPG; each are very different to the other"* (S 7 M P).
>
> *"It's terrible"* (NW 20 F ICP).
>
> *"Assessment of mental illness requires thorough understanding of definitions, symptoms and common disorders"* (S 14 F P).

The CPG was seen to focus more on the agitated patient, providing no guidance to assessing and managing patients who are not agitated:

> *"NO, I think it's too heavily weighted towards agitation in mental health patients (there is no CPG on mental health patients that aren't agitated), and it does not have enough emphasis on de-escalation techniques"* (S 31 F P).

With regard to the management of agitated patients, the participants were asked whether the CPG provided enough guidance in paramedic decision-making to sedate patients. A further 45% (n=9/20) of participants claimed that there was not enough information to support paramedic decision-making:

> *"It tells us how to sedate patients but doesn't have any clear rules about when to abandon other techniques (how long do we try de-escalation, does it change based on pt age, gender, history?) or what the different impact sedation vs non-sedation might have on the pt"* (S 31 F P).
>
> *"Some officers are still confused over its application"* (S 23 F P).
>
> *"Based on the Ambulance Tasmania Agitated Patient CPG, the decision to sedate is highly subjective. Queensland Ambulance Service sedation CPG details the SAT Score (sedation assessment tool) requiring patients to be rated at a minimum of +2 to warrant sedation based on verbal and physical agitation. This tool provides the paramedic with objective evidence of agitation requiring sedation and should be adopted by Ambulance Tasmania"* (S 7 M P).

Of interest, experience was cited as a reason why the mental health CPG did provide enough information to assess and manage patients with mental illness:

> *"The CPG doesn't help us assess people, only our experience and communication can do that. It does help us manage these patients if sedation/restraint is required*" (S 29 F P).
>
> *"Not everything can be placed on paper, either you have the ability or you don't"* (S 25 F ICP).
>
> *"It comes down to paramedic experience and exposure"* (S 6 M P).

When asked whether the participants felt confident in their abilities to use sedation to manage agitated patients, 80% (n=16/20) stated they were confident when required to use sedation, with 10% (n=2/20) not confident and additionally, a further 10% (n=2/20) were undecided.

The following question was asked to gain an understanding of issues paramedics as MHOs may confront:

What challenges did you face as a MHO authorised to take a person into protective custody?

The participants reported instances where patients became violent after being advised that they were to be taken into protective custody:

> *"The patients becoming abusive when I told them they are under protective custody, then needing to sedate and/or restrain them to transport safely. Sometimes they understand and can be transported with no issues, sometimes they become abusive"* (S 29 F P).

> *"Ensuring patient and paramedic safety but also feeling confident and comfortable with the decision. Taking a patient into protective custody can have a profound effect on their health, potentially positively but also negatively"* (S 12 F P).

> *"Taking a patient to hospital against their will. A paramedic needs to be able to communicate effectively with the patient which can be challenging. Or more paramedics or police are generally needed if the patient requires restraining and sedation"* (S 6 M P).

Insufficient resourcing and working with inadequately trained staff were also cited as challenges when taking patients into protective custody:

> *"Non-compliance, irrationality, drug and alcohol fuelled states, verbal and physical violence, emotional relatives, inexperienced paramedic partners needing direction, police co-operation, drug administration and physical restraint if required, pressure from Ambulance Coms for clearing to next job while completing mandatory paperwork and handover to protective custody"* (S 19 M P).

> *"Police not wanting to physically restrain to allow paramedics to administer chemical restraint, thinking we should do it. Other staff who have not had up-to-date MHO training not understanding when behaviour is consistent with a mental health crisis and are a risk to themselves or others that they require assessment even if they don't consent and that we don't need to determine capacity. The attitudes of staff at the hospital once you have arrived"* (N 18 F P).

> *"Not having enough AT resources readily available to assist (eg, ICP assistance)"* (NW 17 M P).

> *"Fitting mechanical restraints with volunteers who are untrained. People not being sedated by the drugs used"* (N 2 M P).

5.2.5 Theme summary

Paramedic participants reported feeling confident in their abilities to take a patient into protective custody, however ongoing education and training in this area was seen to be essential. The organisational clinical constructs designed to assist patient assessment were reported to be inadequate with a clear focus on sedation and restraint and little reference to management techniques to try and avoid these invasive procedures.

Chapter 5 Summary

The results from phase one and phase two of the study have found that paramedics feel underprepared in their abilities to adequately assess and manage patients with mental illness presentations. This has been directly linked to a lack of paramedic education and training for managing patients with a mental illness and a lack of organisational guidelines and protocols to support the paramedic's decision-making processes in providing care to patients with mental illness. The results also identified that stigma towards patients with mental illness was prevalent within paramedic culture and this was reported to be influenced by limited transport options for patients with a mental illness and an overall ineffectual mental health care system. Attending to mental illness cases were reported to be less challenging, motivating and rewarding compared with trauma cases.

The next chapter will provide a detailed discussion of the results presented in this chapter.

Chapter 6 Discussion

The previous chapter presented the findings of phase one and phase two of the research. This chapter will provide a detailed discussion of the results, linking the findings back to the research presented in chapter two.

This research identified a number of primary themes in both phase one and phase two of the study. These include the following:

1. Education and training for paramedics in mental health care;
2. Confidence and competence in providing mental health care;
3. Stigma within paramedic culture;
4. Legal and ethical issues pertaining to mental health care: paramedic perspective;
5. Mental health care versus trauma: challenges and rewards;
6. Lived experience of providing mental health care: paramedic perspective;
7. Stigma embedded within paramedic culture;
8. Legal and ethical issues pertaining to mental health care: post workshop.

6.1 Perceptions of mental health education and training

The importance of paramedic education and training in managing patients with a mental illness was identified as a central theme as it had a significant influence across all themes that emerged. This was not surprising, as previous research has also reported on the impact that paramedic education and training for managing patients with mental illness can have for paramedics on the overall paramedic-patient experience (Roberts & Henderson, 2009; Shaban, 2004). Studies investigating the impact of mental health education and training for other primary health care professionals, emergency medicine doctors, nurses, pharmacists, general practitioners and police, reported similar findings (Clarke et al., 2006; Godfredson et al., 2011; Happell, 2010; Happell & McAllister, 2015; Hodgins et al., 2007; Phokeo et al., 2004; Russell & Potter, 2002; Smart et al., 1999).

In both phase one and phase two, the paramedic participants stated their paramedic trainee education and ongoing professional development centred on patients presenting with traumatic and medical emergencies such as cardiac presentations, whilst mental health care was given little priority or excluded. Education and training for Ambulance Tasmania (AT) paramedics has followed the same evolutionary pathway as other Australian ambulances services, which saw a move from the 'apprentice in service training' model to a degree qualification offered by several Australian universities. The responsibility for providing ongoing professional development for staff falls to the ambulance service and in this instance AT, however this research has found that ongoing education and training for paramedics employed with AT is not directed towards patients with mental illness presentations. These findings were overwhelmingly reported by 83% of the sample in phase one of the research and 79% of the sample in phase two. A high percentage of participants who had received mental health education and training, stated that this had occurred more than two and a half years previously with no recent update. Research supports this notion that paramedic education and training for managing patients with mental illness is given minimal consideration (Roberts & Henderson, 2009; Shaban, 2004) and that education and training in mental health care is warranted. To reject this notion is ignorant and highlights the detrimental effect this could have on patient care delivery. It has been widely reported that education and training specifically focussing on mental health care, increases mental health literacy levels and positively impacts patient care delivery (Booth et al., 2017; De Silva et al., 2015; Jorm et al., 2004; Usher et al., 2014).

To ensure the success of paramedic education and training in managing patients with mental illness however, it is imperative that the program is supported by industry management and all paramedics are given the opportunity to attend. Given that paramedics will be required to undertake continuing professional development (CPD)

as part of their registration requirements from AHPRA, completing education and training in providing care to patients with mental illness could go towards their CPD points. Additionally, it is important that key stake holders such as consumers of mental health care and their support network have input into the training package content. The patient's own experiences cannot be underestimated and patients who have had contact with paramedics as part of their mental illness could provide an insightful account of their experience which may further inform the content that is delivered. As reported by Knaak & Patten (2016), these criteria are essential for increasing mental health literacy and decreasing stigma through education and training (Knaak & Patten, 2016).

6.1.1 The impact of education and training on confidence levels

The concept that health education develops confidence and skill acquisition is not new (Smith, Chen, Plake, & Nash, 2012; Terry & Cutter, 2013; M. Walker, Jensen, Leroux, McVey, & Carter, 2013) and therefore it was not surprising that this research identified a link between a dearth of mental health education and training and decreased confidence levels in providing effectual patient care.

Paramedics play a key role in the assessment and management of patients with mental illness presentations, however the majority of the paramedic participants reported feeling more confident in their abilities to provide health care to patients with cardiac problems when compared to patients with mental illness. Supporting findings from research undertaken with other health professionals (Clarke et al., 2006; Godfredson et al., 2011; Happell, 2010; Happell & McAllister, 2015; Hodgins et al., 2007; Phokeo et al., 2004; Russell & Potter, 2002; Smart et al., 1999), the paramedic participants reported a deficit of education and training in mental health care and limited access to additional resources such as clinical guidelines, were influential in decreasing confidence levels in assessment and management of patients with mental illness. This

was described across phase one and phase two, with reports that often delivering care to patients with mental illness was self-taught with *"getting it wrong a lot of times"* a factor of self-learning. There is a perception that patients presenting with cardiac and respiratory problems are the 'bread and butter' of paramedic work and therefore education and training should focus strongly in these areas. Given that it was estimated that AT paramedics attended 3,366 mental health cases from the period July 1st 2016-June 30th 2017, compared with approximately 3,358 patients presenting with cardiac problems (A. Wilson, personal communication, August 1, 2017), this further highlights this discrepancy in preparing paramedics in their abilities to provide appropriate care to patients with mental illness and provides evidence that education and training in this area is warranted. This research has found that AT paramedics want to increase their mental health literacy through education and training, as improving the paramedic experience in providing care to patients with mental illness and additionally the overall patient experience, was seen to be dependent on this.

6.1.2 The impact of education and training on stigma

This study has found that a lack of education and training in mental health care is directly linked to stigma towards patients with mental illness. These findings were reported in both phase one and phase two of the research. Research previously undertaken across other health professional disciplines, such as general practitioners (Adewuya & Oguntade, 2007; Magliano et al., 2016) and pharmacists (Murphy et al., 2016) further support these findings.

The paramedic participants described stigma as often a by-product of poor mental health literacy skills, including a deficiency in knowledge of mental illness from the perspective of prevalence, risk factors, signs and symptoms and treatment options. This ultimately resulted in a lack of empathy towards this patient group: *"I think it's because partly due to a lack of training, lack of understanding on the part of the patient*

and therefore that leads to a lack of empathy towards the patient". The participants also reported poor communication skills further fuelled these stigmatising behaviours as there was a lack of understanding in how patients with mental illness may respond to questioning and examination both verbally and non-verbally. Given this, it could be argued that a patient's atypical response may have inadvertently been seen as a display of aggression towards the officer, augmenting the perception that patients with a mental illness are violent. Effective communication has been shown to reduce stigma towards patients with mental illness (Bingham & O'Brien, 2017).

The findings further support the need for initial and ongoing education and training in mental health care for paramedics as studies have reported increased mental health literacy is effective in decreasing stigma towards patients with mental illness from health care professionals (Ahuja et al., 2017; Beaulieu et al., 2017; Bingham & O'Brien, 2017; Knaak & Patten, 2016).

6.1.3 The impact of education and training on legal and ethical issues

This research was undertaken pre-and post-changes to the Tasmanian mental health legislation and therefore provided an optimum time to explore the paramedic participants' assessments of their education and training in legal and ethical issues pertaining to mental health care.

Phase one of this study, which was undertaken when AT paramedics were still practicing under the *Mental Health Act 1996*, reported the paramedics' knowledge of their legal requirements when providing care to patients with mental illness was lacking: *"Toughie, I knew you were going to ask me this question. My knowledge is embarrassingly vague"*, which supports findings previously reported (Roberts & Henderson, 2009; Shaban, 2004; Townsend & Luck, 2009). The paramedic participants were informed that amendments to the current *Act*, would have a significant impact on paramedic management of patients with mental illness with

paramedics authorised to transport involuntary patients for ongoing assessment and care. The participants identified that a perceived barrier to culture and clinical practice change was the level of education and training that paramedics would receive regarding their additional legal responsibilities. Accessibility to training and resources, along with rigour executed in the delivery of training were cited as critical in effecting a change to clinical practice:

"There will be a lot more training I hope. There will want to be a lot more training than there was on the pain relief package. I hope the mental health authorities, the people who work in mental health make sure they put together a training package that's appropriate because I think it has the potential to be hugely problematic for the ambulance service if there isn't proper training because if we start authorising patients that shouldn't be authorised it's going to be a really big problem because we're assaulting the patients".

Phase two of the research was undertaken after the introduction of the *Mental Health Act 2013*, which gave paramedics the legal authority to take patients into protective custody and initiate a patient search prior to transport (Tasmanian Government, 2014). All paramedics and intensive care paramedics undertook a one-day training workshop using a power point presentation and role play to deliver information regarding the legislative changes that AT paramedics would be required to comply with, as well as instruction around conducting a patient search. The workshop was delivered by a paramedic who had undergone additional training in the legislative amendments. Once the training was complete, the paramedics were then endorsed as Mental Health Officers (MHO) and authorised to practice under the new legislation. In contrast to previous studies (Roberts & Henderson, 2009; Shaban, 2004; Townsend & Luck, 2009), the majority of participants reported their education and training was adequate and along with experience, assisted the participants to gain confidence in complying

with their additional legal responsibilities: *"Have received good clear training on this, however are aware of peers who have not"*. Concerns however, were raised about the appropriateness of conducting patient searches and whether the training provided fully equipped the paramedic to be able to do this safely: "*I for instance don't feel confident to conduct searches as trained and believe police should be present or be taking the patient if there is a possible risk".*

The majority of the paramedic participants did report that the Mental Health Clinical Practice Guideline which provides paramedics with additional support and information in assessing and managing patients with mental illness, did not provide enough guidance in assessment and management: *"Ambulance Tasmania CPG's are extremely limited relating to every condition. We need more information regarding aetiology, pathophysiology, clinical presentation and management of specific mental illnesses. It is naïve to combine all mental illnesses into one CPG; each are very different to the other"* and was criticised for weighing heavily towards sedation and restraint: *"I think it's too heavily weighted towards agitation in mental health patients (there is no CPG on mental health patients that aren't agitated), and it does not have enough emphasis on de-escalation techniques".* The findings that additional resources available to paramedics is inadequate in assisting with the assessment and management of patients with mental illness, is consistent with findings from research previously undertaken (Roberts & Henderson, 2009; Shaban, 2004).

6.2 Legal and ethical issues pertaining to mental health care: pre and post day workshop

This study is one the first to explore the impact of mental health legislation in the out of hospital setting pre and post amendments which had significant implications for paramedic practice and mental health care in Australia. It was the first study of its kind undertaken in Tasmania.

In phase one of the study, the provision of mental health care was legislated under the *Mental Health Act 1996,* which endorsed specific police officers as Mental Health Officers (MHO), authorising them to take a patient into protective custody for ongoing treatment despite their refusal for care. This meant that paramedics had to request the assistance of a police officer to legally detain a patient with a mental illness, who was considered a risk to self or others and was refusing treatment and transport. The majority of paramedic participants reported that whilst they have a duty of care to keep their patients and others safe, it was recognised that a police officer, in particular a sergeant, was required to legally detain the patient if they were refusing care. Sedation was also mentioned as a means to managing aggressive behaviour, if it meant the patient could be safely transported for further assessment. The majority of paramedic participants stated they were aware the mental health legislation was changing, however despite predictions that paramedics would be authorised as a MHO under the new legislation and legally able to take a patient into protective custody, there was still a belief that police would continue to be called to assist due to the safety and fear concerns previously reported by paramedics and beliefs that police have more training in managing aggressive people. These findings further support the significance of interagency relationships when caring for patients with mental illness as previously reported (Rees et al., 2017). Supporting previous findings (Bradley et al., 2015), this study reported as health care providers, paramedics are in the pivotal position to initiate patient management. Given this, the proposed legislative changes were seen by the paramedic participants as a positive step in providing care to patients with mental illness as it paved way for a continuum of health care from the initial patient contact through to the receiving care facility.

The study however, did find potential barriers to change and along with education and training, the participants were concerned that the additional legal powers would have a

significant impact on staff resourcing. These concerns were based on anecdotal and previous reports (Godfredson et al., 2011) of police being required to stay with patients in emergency departments until an approved MHO was available for patient handover. The new *Act* would also legislate the same handover requirements potentiating these issues for paramedics.

6.3 Perspectives on stigma towards patients with mental illness

Stigmatisation and marginalisation develop in environments where cultural norms exist and personal attributes and attitudes are given a positive or negative value. Negative values may involve feelings of fear, pity and disgust. This study found that stigma towards patients with mental illness is prevalent within paramedic culture, which supports previous findings from studies conducted with paramedics and other health professionals (Adewuya & Oguntade, 2007; Björkman et al., 2008; Chiu-Yueh et al., 2015; Fernando et al., 2010; Linden & Kavanagh, 2012; Magliano et al., 2016; Mukherjee et al., 2002; Munro & Baker, 2007; Murphy et al., 2016; Phokeo et al., 2004; Prener & Lincoln, 2015; Rees et al., 2014).

In phase one, the paramedic participants overwhelmingly reported that stigma was entrenched within paramedic practice. Mental health cases were seen to be less challenging and unmotivating, with patients with mental illness presentations often viewed as time wasters: *"There's a perception of time wasting, there's a perception that because it's not one of our sharp end of cases where we're going to stick IVs in and intubate them and that sort of thing. It's not serious as how I perceive most people see it, it's not a serious case so it's not worthy of an emergency ambulance*".

Non-verbal communicative expressions such as eye rolling were often reported in response to calls to attend a mental health case. Remarks such as "nutter" and "psycho" were also made with one participant stating that comments such as *"next time I'll tell them how to do it properly"* were not uncommon.

Given that paramedics are often the first point of contact for patients with a mental illness and the reported impact stigma has on help seeking and patient recovery, it was essential to explore the paramedic participants' perceptions of what informed stigma in paramedic practice. Along with a lack of education and training which has previously been discussed, the participants identified a number of influencers including culture, the patient's unwillingness to help themselves and the failure of the health system to support patient needs.

6.3.1 Influences of culture

The influence of culture was seen as a by-product of poor education and training opportunities, as the unavailability of formal education and training meant that mental health care was often learnt on road. This led to bad habits being passed on, as well as the notion that 'tough love' for patients who had overdosed, was considered beneficial because it was believed if the patient received "rough treatment", they would not overdose again. *"I can recall overdoses, going with very old crews when I was very young, it was almost slap them in the face and wake them up, throw them on the stretcher. And one of the reasons there was this roughness was the belief that if you were unkind and rough they wouldn't do it again. That attitude and theory carried on in the emergency department where they were given the gastric lavage, they were forced to swallow the charcoal, ipecac syrup was a favourite for torture at some stage as well".* The fact that this type of patient management continued on in the emergency department, further instilled negative behaviours towards this patient group. It was recognised, that experiential mental health learning from experienced paramedics can be beneficial, supporting findings that experience is influential in decreasing stigma (Björkman et al., 2008; Fernando et al., 2010; Mukherjee et al., 2002). Concerns however were raised that potentially, along with experience, comes dissatisfaction from

doing the same thing over and over and these frustrations may in fact influence attitudes and behaviours resulting in a transference of stigmatising attitudes.

6.3.2 Influences of the health system

A failure of the health system was widely found to impact negative behaviours. In a review of clinical and operational services, AT had been criticised for having no formal transport pathways with primary or community services that could better support patients with primary health care needs, including patients with a mental illness (Tasmanian Government, 2017c). This resulted in the paramedic participants reporting frustrations that the emergency department (ED) was in general, the only transport destination available and in particular, after-hours. Supporting findings that patients with mental illness are often triaged lower than other patients which leads to longer wait times (Clarke et al., 2007), along with ED staff reporting lower attitude scores towards patients with a mental illness (Commons Treloar & Lewis, 2008), the paramedic participants claimed that these factors impacted negatively on the patient experience and recovery as well as the paramedic workload. It was reported that often a crew would spend a significant amount of time convincing the patient that they do need to go to hospital for further care and on arrival in ED are met by staff who *"don't want them, they can't manage them or they don't have the resources or education and training"*.

More than 50% of the participants referred to the term 'revolving door phenomenon' or 'frequent flyer' when discussing influencers of stigma and as previously reported (Munro & Baker, 2007), this issue is apparent in acute mental health settings. This was seen to be a reflection of inadequate mental health services, with reports that the health system is a circular door for patients with a mental illness and "*because nobody else really knows what to do with them we get lumbered with them"*. This often leads to feelings of frustration for paramedics with comments such as *"oh no not again"*, made.

Despite public education programs designed to reduce stigma towards people with mental illness and government initiatives to improve mental health services, the phase two results reported stigma was still widely entrenched within paramedic practice. Echoing the findings in phase one, the inadequacies of the mental health services were reported to be influential in patients re-presenting to AT for assistance and as previously reported, this resulted in significant frustrations for paramedics. The paramedics reported knowing that leaving the patient in a noisy overcrowded emergency department (ED) was not a therapeutic environment and often felt at a loss for how they could provide appropriate care to their patients, but given the limitations to transport options, believed this was their only choice. These frustrations were further fuelled by paramedics feeling their knowledge and skill set in mental health care was inadequate and given that paramedics like to find a problem and fix it, this perceived lack of ability to positively impact the patient's outcome, resulted in mental health cases viewed as less rewarding for the paramedic. In addition to inadequate health services, it was acknowledged that 'frequent flyers' are also a product of their own making with reports that patients are non-compliant in their medication and other treatments and "happy to be a burden on society" which further adds to paramedic frustrations towards this patient group.

In phase two, displays of stigma were reported to be the same with verbal and non-verbal actions demonstrated. Patients were referred to as time wasters and attention seekers with comments such as *"if they were serious, they would do it right"* made regarding patients who self-harm.

6.3.3 Influences of patient unpredictability and fear

This study has found that the fear of violence as well as patient unpredictability were described by the paramedic participants as precursors to displays of stigma towards patients with mental illness. These findings were reported widely in both phase one

and phase two of the study, however phase one focussed more so on mental illness and violence as a standalone, whilst the participants in phase two linked violence more so with a co-occurrence of mental illness and substance abuse.

Whilst it was recognised that a diagnosis of mental illness does not equate to all patients becoming violent, the paramedic participants' own personal accounts of being subjected to verbal or physical abuse as well as witnessing these events occurring to other officers in phase one, did instil a fear factor which some participants described as "*a feeling of absolute dread"* when paged to assist patients with a mental illness. This finding is not surprising, given that research has shown an association between severe mental illness and violence (Elbogen & Johnson, 2009; Swartz et al., 1998), in addition to health care workers reporting patients with mental illness as being unpredictable and violent (Angermeyer, 2000; Björkman et al., 2008; van Boekel et al., 2015).

As with other health care professionals working in emergency health areas, paramedics are often required to assist patients presenting with life threatening physical or mental health emergencies. Given the environmental complexities that the out of hospital setting pose, managing patients with an acute mental illness crisis is reported to be challenging and often unrewarding by the paramedic participants, which further fuels stigma. These findings support previous research which also describes the influence environment has on attitudes and behaviours towards patients with mental illness (Björkman et al., 2008; Munro & Baker, 2007).

As with phase one, the paramedic participants in phase two described episodes of verbal and physical violence directed towards them from patients with mental illness as influential in developing stigma, however a re-occurring theme that emerged was the influence drugs and alcohol had in cultivating aggression and violence. The participants also reported the co-occurrence of mental illness and substance abuse was common and whilst most violent acts occurred from patients under the influence of

drugs and or alcohol, the general consensus was that these patients also have a mental illness and the two problems exacerbate each other. These findings support other research which found that patients with a co-occurrence of substance abuse and mental illness were more likely to be perpetrators of violence than patients with either disorder as a standalone (Elbogen & Johnson, 2009; Swartz et al., 1998).

The study found that further impacts to staff resourcing were identified, with the paramedic participants voicing concerns that the preference for patients and providers of care to patients with mental illness, would be to call for paramedic assistance in the first instance instead of police. This supports previous findings where paramedics were viewed as part of the broader mental health service and as such, were seen to be the more appropriate first responder to mental illness crises than police (Parsons et al., 2011).

Phase two was completed after the implementation of the new mental health legislation. This heralded a significant change to paramedic practice in Tasmania, with regard to the assessment and management of patients presenting with mental illness. Along with other state jurisdictions (Shaban, 2004; Townsend & Luck, 2009), AT paramedics were authorised as Mental Health Officers (MHO) to take a person into protective custody for ongoing care, if it was reasonably believed that the patient had a mental illness and was considered a risk of harm to self or others. After completion of a 1-day training workshop, AT paramedics were legally permitted to perform under their new legal scope of practice.

A surprising result from this study was the majority of participants in phase two felt confident in their abilities to practice within the new legal framework citing education and training as well as experience as influencing confidence. These results do not concur with previous studies (Bradley et al., 2015; Shaban, 2004; Townsend & Luck, 2009) which found paramedics often felt trapped trying to navigate their way through

the maze of lawfulness. The study however, did find that confusion around the terminology used in the legislation was linked to indecisions in clinical decision-making for the paramedic participants. In the majority of cases and distinct from other health care providers, paramedics do not have ready access to patient health records and given that the decision to take a patient into protective custody is based initially on a reasonable belief that the patient has a mental illness, meant that at times subjective decisions were made which may not have been in the best interest of the patient. It could be argued that to be able to make a reasonable determination of whether a patient has a mental illness or, is presenting with signs of a mental illness, an understanding of what mental illness is would be expected. Terms such as “impaired thought processes”, references to “mood” and “cognition”, “emotional wellbeing” as well as “impairment to decision-making processes” were used to describe mental illness by the paramedic participants. Patients presenting with these signs may be assumed to have a mental illness and under the legal framework of the *Mental Health Act 2013,* taken into protective custody without undergoing a complete assessment. Given that there are a multitude of organic causes of impaired cognition and thought processes, such as head trauma, infection and endocrine disturbances (Curtis & Ramsden, 2016), misdiagnosis and delayed appropriate treatment may result with potential catastrophic outcomes for patients, as previously reported (Shefer et al., 2014).

Defensive practice was also raised as a consequence of legislative change and is a finding reported in other studies (Rees et al., 2017; Townsend & Luck, 2009). This study found that the paramedics’ lack of confidence impacted on their ability to decide whether a patient meets the requirements for involuntary treatment. To avoid the risk of litigation, paramedics will take the patient into protective custody in the first instance without taking the time to fully assess the patient and employ other management

techniques such as de-escalation, as these were seen to be time consuming and often futile.

Diagnostic overshadowing has been widely reported in the literature (Nash, 2013; Shefer et al., 2014), in particular with reference to patients with a history of mental illness presenting to the emergency department with a physical health complaint. A past history of mental illness can often overshadow any physical complaint, resulting in the patient being incorrectly triaged with a mental illness problem. Given that the co-occurrence of physical and mental illness problems is extremely common (Laursen et al., 2011; Mai et al., 2011) and the complexities of making crucial decisions in often chaotic environments with patients who are unable to communicate effectively, it is conceivable that paramedics may misdiagnose physical health problems in patients with mental illness. It is even more plausible, given this study has found that patients with mental illness re-presenting to the ambulance service is common, it could be argued that the risk of misdiagnosis and eliminating a physical cause in the initial assessment phase delayed appropriate treatment, is even more probable when considering the 'boy who cried wolf' syndrome.

The following vignette is an anecdotal account of diagnostic overshadowing in the out of hospital setting:

A paramedic crew are called to attend a 17-year-old female with breathing difficulties. As would be expected, the crew would discuss possible aetiologies for the patient's presentation on route to the case, which is often shaped by the information given by the communication centre, for example the patient has a past history of asthma. On arrival, the crew are greeted by a very distressed parent who direct the crew to the bedroom where the patient is sitting upright leaning over the bedside table. Initial impression is the patient is tachypnoeic (rapid breathing), using accessory muscles and speaking in short sentences which would suggest a moderate to severe respiratory distress (Curtis

& Ramsden, 2016). The crew are informed by the parent that the patient does not have any past history of respiratory problems and is generally fit and healthy. The only notable illness was a recent 'cold' which progressed into a sinus infection and the patient saw her GP who diagnosed a viral infection. This was two weeks prior and the patient has been well since. When asked if the patient is on any medication, the parent produces a packet of Fluoxetine (Prozac) stating that the patient has had 'personal problems' and was prescribed this medication for anxiety. After completing an initial physical assessment where the patient was found to have clear lung sounds and a normal temperature, the focus for the crew was to explore the past history of anxiety further with a presumption that this presentation may be a panic attack. Given that anxiety disorders are the most common mental illness in Australia affecting predominately females from 16 years of age (Australian Bureau of Statistics, 2008), the possibility that it is anxiety related is reasonable. As there are many causes for respiratory distress presentations (Curtis & Ramsden, 2016), concentrating on anxiety and eliminating a physical cause in the initial assessment phase can result in delayed treatment and affect overall patient outcome. In this scenario, the crew continued to presume the cause was anxiety related and attempted to slow the patients breathing through communication exercises such as "breathe in and out at the same rate as me". Despite these efforts, the patient's condition did not improve and further deteriorated with the patient feeling lightheaded and nauseous. Due to the persistence of the parent that this was not anxiety, the crew decided to transport the patient with no other assessments completed on route to hospital. At handover, the crew emphasised the history of anxiety and reported that they had not identified any physical cause for the respiratory distress. In hospital however, additional assessments were completed with the patient's blood glucose level (BGL) measured which was found to be extremely high and after further assessments, the patient was diagnosed with a first presentation of type 1 diabetes. The tachypnoea resulted from a physiological response to a

metabolic acidosis (Curtis & Ramsden, 2016) and was not associated with anxiety. Asking the patient to 'slow their breathing' was not going to be effective as this was the bodies response to try and eliminate an increase of ketone acids (Curtis & Ramsden, 2016). If the patient had not been transported to hospital, her condition would have continued to deteriorate with potential devastating consequences.

This vignette has demonstrated the detrimental effects diagnostic overshadowing can have on patient care and outcomes. If the paramedic crew had been less biased towards a mental illness aetiology, they may have completed a more thorough patient assessment including BGL monitoring and identified that the patient was hyperglycaemic with no history of diabetes, further realising that the tachypnoea was a physiological response and treated accordingly.

The discussion around decision-making processes was interesting as impaired decision-making was seen to be a determinant of mental illness, with claims that the patient may lack the capacity to refuse treatment and furthermore, it was at the paramedic's discretion to determine if the patient should be taken into protective custody. Given that paramedics have been granted legislative powers under the *Act* to do this, as long as they are practicing within their legal framework, they are not required to undertake a capacity assessment on the patient despite this being reported. The law clearly states that a presumption of mental illness and perceived risk of harm is all that is required to detain a patient and transport them for ongoing care. Further to this *Section 25 of the Mental Health Act 2013* states, a person must be considered to not have "decision-making capacity" when taken into protective custody (Tasmanian Government, 2014).

Along with the legal framework stipulated in the *Mental Health Act 2013,* paramedics are also required to practice within the constraints of their own ambulance service protocols or guidelines and in Tasmania this is referred to as the Ambulance Tasmania

Clinical Practice Guidelines (CPGs) for Paramedics & Intensive Care Paramedics (Ambulance Tasmania, 2012). This study found that the majority of paramedic participants did not feel the *Mental Health CPG A0708(b)* provided enough guidance for paramedics to undertake an appropriate patient assessment and develop a management plan for the patient. The CPG was criticised for weighing heavily towards the agitated patient and focus heavily on restraint and sedation with minimal reference to de-escalation strategies and supports earlier findings suggesting it is not reflective of the spectrum of mental illness presentations (Shaban, 2004). Given earlier findings that novice paramedics rely considerably on CPGs and protocols to guide their decision-making (Wyatt, 2003), these findings have significant implications for patient care and warrant further research.

There were no strategies for patient assessment and given the complexities of diagnostic overshadowing previously discussed, the potential for misdiagnosis and delayed appropriate treatment is considerable.

The potential difficulties for paramedics in adopting and practicing under the new legal framework were explored in phase one with a further investigation in phase two which found a number of actual challenges reported by the paramedic participants. Detaining patients was reported to be challenging, in particular when patients become agitated and violent when advised they were under protective custody, along with working with paramedics who were not confident in their knowledge and abilities to practice within the legal framework. The importance of interagency relationships has previously been discussed (Rees et al., 2017), however this was an area identified as problematic for paramedics with reports that police were reluctant to assist with restraining patients so that they could be safely sedated. The study found that the majority of paramedic participants were ambivalent as to whether changes to their legal responsibilities had resulted in a change in their practice. It was reported that paramedics were doing what

they always did, however they now had a legal framework to practice within, which could be interpreted as paramedics would detain patients with a mental illness and transport them for ongoing care if there were concerns about their mental wellbeing and safety, despite breaching their legal responsibilities.

6.4 Levels of confidence in assessing and managing patients with mental illness

This study has found that paramedics lack confidence in their ability to effectively assess and manage patients with mental illness and along with a deficit of education and training in mental health care, a number of factors were reported to negatively impact confidence and competence.

6.4.1 Clinical constructs

In phase one, the paramedic participants were asked to describe their levels of confidence when required to assist a patient with mental illness compared with a patient with chest pain. Clinical constructs such as the clinical practice guidelines (CPGs) for patients with a mental illness, were criticised for lacking detail and definition. Unlike the CPGs for patients with chest pain which provide clear assessment and management directions, the purpose of the mental health assessment was to provide a systematic method to evaluate the patients mental function, however did not provide paramedics with a defined assessment and treatment pathway. This supports earlier findings that organisational protocols and guidelines do not support the expanding scope of practice for paramedics (Bendall & Morrison, 2009). Paramedics see their role as identifying a problem and developing a treatment plan to fix the problem. If a patient has chest pain, the paramedic can undertake a number of assessments to identify the cause of the chest pain as well as administer medication to reduce or eliminate the pain, which are all detailed in the CPG. In comparison however, the mental health assessment CPG might guide the paramedic to determine that the

patient's behaviour is bizarre, or their mood is depressed, or their thought content is irrational, however it does not provide any information regarding patient management. In addition to the mental health assessment CPG, paramedics have access to the agitated patient CPG and post the new legislative changes, a revised mental health CPG, which does provide some detail about patient assessment, however both were criticised in phase two of the study as their main focus was patient sedation and restraint with little reference to de-escalation strategies that could potentially remove the need for restraint and sedation. Given that studies have found that novice paramedics rely highly on their organisational guidelines and protocols to direct their clinical decision-making (Wyatt, 2003), it could be argued that less experienced paramedics may become more confident in sedating and restraining patients with mental illness, however their confidence and competence in patient assessment and management outside of restraint and sedation remains low.

It may not be a requirement for paramedics to have to determine a patient's capacity to refuse care under *Section 25 of the Mental Health Act 2013*, however there are situations where this is a requirement. An example of this is when a patient presenting with chest pain refuses transport to hospital despite being informed that they are most likely having a cardiac event. As previously discussed, the law protects the patient's right to determine their own health care plan and if it is deemed the patient has the capacity to make an informed choice, then this must be respected (Townsend & Luck, 2009). To explore this further, the participants in both phase one and phase two of the study were asked to describe what tools they use to determine whether a patient has the capacity to refuse care. This was reported as difficult and without supporting clinical guidelines, patient factors such as their physical and mental health history were used. This however was not completely reliable as paramedics often do not have access to past history information and often this cannot be verbalised by the patient.

Factors such as whether the patient was under the influence of drugs and or alcohol were influential as well.

6.4.2 Influence of experience and gender

Experience has been reported to positively impact confidence levels and decrease stigma within mental health care (Björkman et al., 2008; Chiu-Yueh et al., 2015; Fernando et al., 2010; Mukherjee et al., 2002). This study however, has found that experience is both positively and negatively associated with mental health practice.

Supporting findings that experience positively impacts confidence, this study found that paramedics with years (8-30) of experience working on road providing clinical care, reported that they felt equally as confident managing patients with mental illness and cardiac related presentations. Experience was a significant influencer in the participants reporting who they would prefer to be crewed with when attending cases to patients with a mental illness. Perceived cynicism of experienced paramedics was reported to negatively impact the paramedic/patient experience for some participants, however others reported that experienced officers were more likely to be able to determine threatening behaviours of patients and mitigate risks of violence.

Gender was also reported to impact confidence in managing patients with a mental illness. In phase one, there was an equal distribution of female and male participants, however a significantly higher number of females reported feeling less confident in managing a patient with a mental illness compared to a cardiac patient. Confidence was also compounded by the perceived safety and fear factor linked to patients with a mental illness and all participants who reported this concern were female. In phase two, a higher percentage of female participants found mental illness cases challenging compared with the male participants. Further supporting the findings in phase one, female participants in phase two reported lower levels of confidence compared with their male counterparts and additionally, the female sample reported that they

experienced more anxiety attending to patients with mental illness. Female participants reported higher occurrences of stigma within mental health care compared with the male sample. As there was a slightly higher percentage of female participants in phase two, this may bias the findings regarding gender differences, however given the findings in phase one, it is reasonable to assume that the phase two findings are representative of the female and male samples.

6.4.3 Safety and fear

The link between violence and people with severe mental illness is widely reported (Elbogen & Johnson, 2009; McGinty et al., 2013; Swartz et al., 1998) and in considering this, it is not unexpected to find personal safety and the fear of violence as influencers of the paramedics decreased confidence levels when assessing and managing patients with mental illness presentations. The paramedic participants described their lived experience of being called to assist patients displaying unpredictable behaviours and how this made them feel vulnerable and frightened. They expressed feelings of “dread” when called to attend cases triaged as psychiatric and linked these feelings and emotions to their lack of overall confidence in their abilities to assess and manage the patient. Safety, fear and confidence were also reported to be associated with the paramedic attitudes, with reports that at times the paramedic they were crewed with would inflame and escalate situations with patients with mental illness, creating unsafe and unpredictable environments. The link between health professionals’ attitudes towards patients with mental illness and safety/fear factors, is well reported and has been linked to experience of working with patients with mental illness (Björkman et al., 2008; Fernando et al., 2010; Linden & Kavanagh, 2012; Mukherjee et al., 2002). Given that the study also reported a link between confidence and experience, as well as the reliance of novice paramedics on CPGs which were found to be inadequate, it could be argued that less experienced paramedics have the

propensity to inflame situations with patients with mental illness because of their lack of confidence in how to approach, assess and manage patients without relying on sedation and restraint.

6.4.4 Influence of challenges and rewards on confidence

This study has found that calls to assist patients with mental illness were viewed as less rewarding compared with attending major trauma cases. In phase one, when asked to describe how they would feel if other crews were dispatched to a major motor vehicle crash (MVC) whilst the paramedic participant and partner were dispatched to the local supermarket to attend a patient with behavioural disturbances, overwhelmingly the response was that trauma cases were more challenging and regarded more highly than mental health cases. Terms such as "good job", "bigger job", "decent work" and "sexy jobs" were used to describe the trauma case, whereas one participant referred to the mental health case as "*I got the short stick I think on that one".* The participants stated that their education and training had prepared them to manage MVCs confidently, in contrast to mental health cases. This further supports findings regarding the scope of paramedic education and training and emphasis on trauma and medical conditions (Rees et al., 2017; Townsend & Luck, 2009).

In contrast however, mental health cases were generally seen to be of less clinical challenge as the 'find it and fix it syndrome' previously referred to, resulted in paramedics feeling powerless in their abilities to initiate management for the patient as they could not 'find the problem', with the only option to transport the patient to a health care facility. The variability of mental illness presentations however, was seen as a challenge for some of the paramedic participants. This was further increased with reports that determining whether the patient was presenting with an acute mental illness or physical health problem was difficult, in particular when the CPGs did not provide adequate assessment and management guidelines. Given that the co-

occurrence of severe mental illness such as schizophrenia and significant physical illness such as cardiac and circulatory problems is well reported (Morgan et al., 2012), the potential for patients presenting with symptoms of both mental and physical health concurrently, is highly possible. It is even more plausible that AT paramedics will be met with the challenges of managing patients with mental and physical health problems given the report that Tasmania had the highest prevalence of mental illness nationally, as well as the comorbidity of cardiovascular disease and renal disease in people with mental illness (Australian Bureau of Statistics, 2015b; National Mental Health Commission, 2017).

Additional challenges were identified in phase two with the majority of paramedic participants reporting a deficit of education and training had significant negative impacts on confidence and competence in patient assessment and management. Patient unpredictability and limited transport options were further highlighted in phase two

Only 10.7% of the participants found mental health cases rewarding with claims that developing a rapport with the patient and gaining their trust was satisfying, however it was also reported that this did not happen often.

Chapter 6 Summary

Education and training for managing patients with mental illness was found to be significant in influencing the paramedic's decreased confidence and competence in providing care to patients with a mental illness, as well as informing attitudes towards this patient group. These findings were not surprising or unique as similar findings have been reported nationally and internationally across a number of different health disciplines including paramedicine.

The paramedic participants reported feeling more confident in managing patients with a cardiac presentation, as sufficient education and training in this area was provided as well as access to resources such as clinical practice guidelines (CPGs) which assisted the paramedic in their decision-making processes. This was reported to be lacking with regard to mental health CPGs which were found to be confusing and directed more towards agitated patients.

A deficit of paramedic education and training in managing patients with mental illness was also found to be directly linked to stigma towards patients with mental illness. This was reported to be due to poor mental health literacy skills which resulted in a lack of empathy for these patients. In addition to education and training, a failure of the health system to adequately support patients with mental illness was also reported as influential in developing stigma towards this patient group.

The next chapter will close the thesis, providing a summary of previous chapters, identifying the limitations and discussing the implications for paramedic clinical practice based on the research undertaken.

Chapter 7 Conclusion

The previous chapters presented the thesis introduction (chapter 1), literature review (chapter 2), Tasmanian perspective (chapter 3), methodology and study design (chapter 4), findings of the results (chapter 5) and a detailed discussion of the results (chapter 6). This chapter closes the thesis by summarising the main findings, identifying and explaining the limitations of the study and discussing the implications for paramedic clinical practice in the assessment and management of patients with mental illness presentations.

Mental illness is one of the most common health problems, however there is an inequity in the health care provided to this marginalised patient group. Australia reports that 1 in 5 of the population aged between 16 and 85 years will present with a common mental illness, such as anxiety, depression, or substance use disorder, in any one year. In addition, 0.5% of Australians will have a severe mental disorder such as schizophrenia. Despite these findings and the fact that mental illness was reported third highest behind cardiovascular disease and cancer with regard to burden of disease, mental health care in Australia continues to be inadequate despite a number of reforms that have been undertaken.

The progression of Australia's history in mental health care has seen patients from the early 1800s treated in institutional facilities where restraint and sedation were popular management choices, through to the 1992 reforms where mainstreaming and deinstitutionalisation resulted in standalone psychiatric facilities being closed and mental health care became part of the general health care system. This period also saw a significant increase in the number of mentally ill patients seeking help from primary health care providers such as general practitioners and in addition to this, the number of patients reporting to emergency services such as emergency departments and ambulances services increased significantly.

Tasmania, Australia's only island state, has been reported to have additional challenges impacting health care, including the care provided to patients with mental illness. Tasmania has the highest ageing population nationally as well as the highest rates of physical illnesses such as arthritis, asthma, heart disease, hypertension and kidney disease. In addition, more Tasmanians are obese compared with other states and territories as well as being less physically active. Tasmania was reported to have the highest prevalence of mental illness and comorbidity of mental illness and chronic health conditions such as cardiovascular and renal disease. Tasmania was also ranked second highest behind the Northern Territory with regard to suicide rates. Given these challenges, a restructure of the health care system was undertaken in 2015 and despite additional funding allocated to mental health care in 2017, access to adequate mental health services remains poor.

Research has been undertaken to investigate the effectiveness of mental health care for patients as well as to identify and mitigate where possible, any challenges that may impact the care provided. This study was undertaken to investigate the lived experiences of paramedics in providing mental health care in the Tasmanian out of hospital setting, however a dearth of paramedic specific research resulted in broadening the search to include the experiences of additional health care professionals and emergency service personnel such as physicians, nurses, pharmacists and police.

The results of the study have addressed the original aims:

1. To determine the prevalence of paramedic call outs to attend to patients with mental illness presentations;
2. To explore the self-perceptions of mental health literacy levels in paramedics;
3. To identify perceived gaps in mental health literacy;
4. To investigate the attitudes, behaviours and confidence of paramedics when managing patients with mental illness and or suicidal ideations;

5. To explore the link between confidence measures and education and training;
6. To Investigate the paramedics level of understanding of the *Mental Health Act 2013* and explore their level of confidence in enacting this new legislation post implementation and training.

Research has found that in general, health care providers and police lack confidence in their abilities to provide effectual care to patients with mental illness. Central to this is poor mental health literacy which is associated with the lack of education and training in mental health care. A deficit of education and training was also linked to stigma towards these patients, which was further endorsed by the perceptions of violence and unpredictability of patients with a mental illness.

This research was undertaken in Tasmania with Ambulance Tasmania (AT) paramedics as the study sample. The findings of the two-phase study supported previous research that paramedics are less confident in their abilities to manage patients with mental illness compared with patients presenting with physical illness or traumatic conditions and additionally, a lack of education and training in mental health care was found to be a critical factor. Stigma was found to be embedded within paramedic culture and additionally, linked to poor education and training. A number of challenges impacting the care provided to patients with a mental illness were reported in the study, in particular with the deficiencies of the health system resulting in patients re-presenting to AT with the same mental illness problem because access to appropriate care was unavailable. Patient re-presentations also had a positive effect on stigma with paramedics reporting feelings of frustration that their time was taken up transporting patients to the emergency department knowing that they would be discharged back into the community and nothing would have changed.

The study also found that paramedics find patients with a mental illness unpredictable and potentially violent, which was linked to personal experiences as well as poor mental health literacy around different disorders and management practices. In

particular, communication and de-escalation were reported to be paramount in diffusing a threatening situation and additionally, preventing a situation to become unsafe.

Legal and ethical issues pertaining to the delivery of health care can be challenging when the aim is to ensure the treatment given to the patient is beneficial, however the patient may experience discomfort as part of the management procedure. Respecting the patient's right to make an informed decision about refusing care, despite the fact that this would have a detrimental effect on the patient's wellbeing, is extremely difficult. Transporting a patient with a mental illness for ongoing assessment and management despite their refusal, provided paramedics with additional challenges. This practice resulted from changes to the mental health legislation in 2014 which authorised AT paramedics as Mental Health Officers (MHO) and empowered them to take a patient into protective custody. Despite paramedics reporting their initial one-day training in the new legal framework was adequate, it was additionally reported that supporting resources such as organisational clinical practice guidelines (CPGs) were insufficient in providing information regarding the assessment and management of patients with a mental illness. The CPGs were found to focus on practices such as restraint and sedation, with little information about de-escalation given. This was reported to be challenging for the paramedics with concerns that restraint and sedation may lead to misdiagnosis and delayed treatment. The study found that diagnostic overshadowing was reported in patients attending the emergency department (ED) with dire consequences when the patient's past history of mental illness dominated the patient's physical health complaint and the reason they attended the ED in the first place, which resulted in misdiagnosis and reported deaths. This was further hampered by patients with mental illness re-presenting to the ED with the same physical complaints, however these were diagnosed as extensions of their mental illness.

Given the findings of this study, paramedic education and training in managing patients with mental illness is paramount to improve the paramedic patient relationship and positively impact patient care and patient recovery.

To ensure the success of the education and training package, the following criteria as discussed by (Knaak & Patten, 2016), must be included:

1. Consumers of mental health care and their families need to be consulted regarding the training package content. This should also include testimonies from patients about their own personal experiences;
2. The training needs to be inclusive of all learning styles to facilitate participant engagement and learning;
3. The training program needs to be supported by industry management. All paramedics need to be given the opportunity to attend and as an added incentive, the training program could go towards continuing professional development (CPD) points, as this will be a requirement from AHPRA;
4. Paramedics need to understand that they play an integral part in the patient's recovery journey and inclusion of this content in the training program is essential.

Of all the references in this thesis, Knaak & Patten, (2016) stands out as the best pathway forward to facilitate culture change, given the needs identified in this study. It is essential the criteria identified by Knaak & Patten, (2016) are adopted when developing an education and training package for paramedics.

Research into diagnostic overshadowing in the out of hospital setting is also critical given the frequency of mental illness patient re-presentations and the catastrophic effects it can have on patient outcomes.

7.1 Limitations

The author has identified several limitations to this study, including a small sample size in phase two despite three emails endorsed by the CEO and Director of Medical Services at Ambulance Tasmania being sent to all AT paramedics inviting them to

participate. Given this, there is a possibility of selection bias, in that the paramedics may have entered into the study with undisclosed life experiences relating to mental illness or a specific interest in mental health. It could be argued that the small sample size in phase two of the study was not a true representation of the AT paramedics. However, despite the small sample in phase two, the qualitative data that was collected was substantial and added to the rich data set already amassed.

A number of factors have been proposed for the small sample in phase two. The study was conducted at a time where AT paramedics had only recently participated in another research study, which could have resulted in a reluctance to participate again within a short timeframe. This is supported by reports that paramedics support the concept of out of hospital research to improve patient outcomes, however also lack enthusiasm in participating in research due to time constraints, limited support in conducting research, a perception that undertaking research is not part of the paramedic role and the concern that research process could negatively impact patient assessment and management. These factors are potential reason for the low participation rate. To try and mitigate the low response rate, two reminder emails were sent out to all AT paramedics inviting them to participate. These were sent out two and four weeks post the date of the initial email. This however did not increase the number of participants substantially.

It was also noted that eight of the survey questions were incomplete, limiting the amount of data collected. This could have been a reflection of the length and time taken to complete the survey in phase two. All questions in phase two were reviewed by the author, supervisors and panel members of the AT research committee. The questionnaire however, was not sufficiently piloted to determine the appropriateness of the number of questions and the time allocation. There was a significant delay in the Ambulance Tasmania Research Committee granting approval for the survey to be

disseminated to the paramedics. This resulted from the cancellation of the research meetings where the survey was to be reviewed and extensive reviews of the survey questions which amounted to a considerable time delay in sending the survey out.

It is acknowledged that failing to pre-test the survey could have been influential in the low response rate and a reason why some of the surveys were incomplete.

Given the small numbers in phase two, reliability has limited the type of statistical analysis that could be completed. Interpretation of the Chai square analysis needed to be done with caution.

The study was undertaken at a time of mourning for many AT paramedics as one of their highly respected colleagues had suicided and this study may have been seen to be too confronting given the circumstances at the time.

An additional limitation was that AT paramedics were involved in an industrial dispute in July 2016, which resulted in patient report documentation not being completed. This could have contributed to an underreporting of the number of mental health and cardiac related cases paramedics attended at the time, however this cannot be qualified.

An additional limitation was that student paramedics participated in the pilot test that was undertaken to test the interview process in phase one. The rationale for choosing the student paramedics as opposed to an 'expert panel' was because the students were easily accessible as they were currently undertaking an intensive at the university where the author was employed. The students who participated were either employed by Ambulance Tasmania as full-time paramedic students or had extensive experience working as a volunteer paramedic with a minimum of 18 months experience. Despite this, an 'expert panel' should have been consulted to ensure that the participants of the pilot study had extensive clinical exposure and replicated the characteristics of the main sample group.

Despite these limitations, this study does extend findings previously reported and further adds to the body of knowledge in mental health care and in particular, to the scarcity of paramedic led research in mental health care.

7.2 Implications for clinical practice

Previous studies have found that there is a deficit in paramedic education and training in assessment and management of patients with mental illness. This study supports these findings as well as introduces additional information which sheds a new light on how education and training should be delivered with regard to content and structure.

The findings of this research have significant implications for mental health care in the out of hospital setting in Tasmania. Stigma towards patients with mental illness for example, was found to be entrenched within paramedic culture. It was reported that patients are perceived to be time wasters and mental illness presentations are not serious enough to warrant an emergency ambulance response. Education and training in mental health care has reported a reduction in stigma, and it is imperative that paramedic education and training programs address the 'stigma issue' as well. This is more than just talking about stigma, this is about improving the paramedic's understanding of what mental illness is, why patients present in certain ways, and how society as a whole impacts the patient's mental health journey. An understanding of the cyclical nature of the illness, may improve attitudes towards the patient as well as explain why patients re-present with the same problems.

Education and training also needs to address the paramedic's own mental wellbeing. The study found that paramedics often feel frustrated when providing care to patients with mental illness because the only real option is for the patient to be transported to the emergency department which is not optimal. Recent reports have found that hospital overcrowding has resulted in significant delays with patients being transferred from paramedic care to hospital care, a term known as 'ramping'. This has resulted in

additional frustrations for paramedics and as reported by the ABC news in May 2019, “paramedics say they are experiencing anxiety, insomnia and are being reduced to tears due to stress” (Whitson. R, 2019). The fact that the emergency department is the only real option for transport of patients with mental illness and the knowledge that handover of the patient may be significantly delayed, further fuels these frustrations towards the patient. An education program that includes self-care strategies is essential to not only assist with living with frustration, but also to mitigate stress and ‘burn out’ issues.

Effective communication and de-escalation strategies also must be addressed in paramedic education and training for managing patients with a mental illness. This study reported that paramedics find patients with mental illness presentations are unpredictable in their behaviours which leads to safety and fear issues. It was also reported that safety and risk of harm are further escalated depending on who the other officer is they are working with and how they (other officer) communicated with patients with mental illness.

This research is well timed given the changing landscape of the paramedic profession with registration in Australia now a requirement to practice as a paramedic, as it paves the way for the development of a national education package and national guidelines to support the development of mental health literacy for paramedics and the delivery of effective care to patients with mental illness. As primary health care providers, paramedics must be educationally prepared to assess and manage patients with mental illness and to enable this, a paradigm shift is warranted to promote practices that truly foster the delivery of evidence-based practice in mental health care in the out of hospital setting. Additionally, the implementation of paramedic registration and the requirements of the registration authorising body that paramedics must maintain and continue to develop their knowledge and expertise, provides additional education and

training opportunities in managing patients with a mental illness. It is imperative however, that in addition to educating paramedics in assessment and management of patients with mental illness presentations, broader issues around culture, communication and stigma must be addressed.

7.3 Where to from here: the next chapter

My interest in providing care to patients with mental illness in the out of hospital setting has continued to grow throughout my research journey. Education and training in mental health care in both pre and post paramedic employment cannot be underestimated. This is an area that I am currently involved in (delivering Mental Health First Aid training to paramedic students) and an area that I would like to personally develop further in. My next step in my journey is to complete post graduate studies in mental health so that I have a qualification in mental health care. My goal is to see a national standard adopted for educating paramedics in providing evidence-based care to patients with mental illness. I hope this research as well as my paramedic qualification and mental health qualification, will provide me with opportunities to work with government and industry to develop policies around protocols and practices that will improve the patient and paramedic experience in mental health care.

Bibliography

Abouyanni, G., Leonie, J. S., Harris, M. F., Wickes, W. A., Ramakrishna, S. S., Ta, E., & Knowlden, S. M. (2000). GP attitudes to managing drug- and alcohol-dependent patients: a reluctant role. *Drug Alcohol Review, 19*. doi:https://doi.org/10.1080/713659318

Acharya, B., Hirachan, S., Mandel, J. S., & van Dyke, C. (2016). The mental health education gap among primary care providers in rural Nepal. *Academic Psychiatry, 40*(4), 667-671. doi:https://doi.org/10.1007/s40596-016-0572-5

Adewuya, A. O., & Oguntade, A. A. (2007). Doctors' attitude towards people with mental illness in Western Nigeria. *Social Psychiatry and Psychiatric Epidemiology, 42*(11), 931-936. doi:https://doi.org/10.1007/s00127-007-0246-4

Adshead, S., Collier, E., & Kennedy, S. (2015). A literature review exploring the preparation of mental health nurses for working with people with learning disability and mental illness. *Nurse Education in Practice, 15*(2), 103-107. doi:https://doi.org/10.1016/j.nepr.2015.01.004

Ahmead, M. K., Rahhal, A. A., & Baker, J. A. (2010). The attitudes of mental health professionals towards patients with mental illness in an inpatient setting in Palestine. *International Journal of Mental Health Nursing, 19*(5), 356-362. doi:https://doi.org/10.1111/j.1447-0349.2010.00674.x

Ahuja, K. K., Dhillon, M., Juneja, A., & Sharma, B. (2017). Breaking barriers: An education and contact intervention to reduce mental illness stigma among Indian college students. *Psychosocial Intervention, 26*(2), 103-109. doi:https://doi.org/10.1016/j.psi.2016.11.003

Ambulance Tasmania. (2012). *Ambulance Tasmania clinical practice guidelines for paramedics & intensive care paramedics.*

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.): American Psychiatric Association Publishing.

American Psychiatric Association. (2015). What is mental illness? Retrieved from https://www.psychiatry.org/patients-families/what-is-mental-illness

Angermeyer, M. C. (2000). Schizophrenia and violence. *Acta Psychiatrica Scandinavica, 102*, 63-67. doi:https://doi.org/10.1034/j.1600-0447.2000.00012.x

Australian Bureau of Statistics. (2008). *4326.0 - National Survey of Mental Health and Wellbeing: Summary of Results, 2007*. Canberra: Commonwealth of Australia. Retrieved from http://www.abs.gov.au/ausstats/abs@.nsf/mf/4326.0

Australian Bureau of Statistics. (2015a). *3303.0 - Causes of Death, Australia, 2015*. Commonwealth of Australia. Retrieved from http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/3303.0~2015~Main%20Features~Intentional%20self-harm:%20key%20characteristics~8

Australian Bureau of Statistics. (2015b). *4364.0.55.001-National Health Survey: First Results, 2014-15* Canberra: Australian Government. Retrieved from https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012014-15?OpenDocument

Australian Bureau of Statistics. (2018). *4364.0.55.001 - National Health Survey: First Results, 2017-2018*. Canberra: Australian Government Retrieved from http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4364.0.55.001?OpenDocument

Australian Government. (2000). *Mental Health of Young People in Australia*. Commonwealth of Australia. Retrieved from http://www.health.gov.au/internet/publications/publishing.nsf/Content/mental-pubs-m-young-toc~mental-pubs-m-young-1

Australian Government. (2017a). *Fifth National Mental Health and Suicide Prevention Plan*. Commonwealth of Australia. Retrieved from http://www.health.gov.au/internet/main/publishing.nsf/content/mental-fifth-national-mental-health-plan

Australian Government. (2017b). *World Heritage Places - Tasmanian Wilderness*. Commonwealth of Australia. Retrieved from https://www.environment.gov.au/heritage/places/world/tasmanian-wilderness

Australian Institute of Health and Welfare. (2011). *Burden of disease*. Commonwealth of Australia. Retrieved from http://www.aihw.gov.au/burden-of-disease/

Australian Institute of Health and Welfare. (2012). *Australia's health 2012*. Australia's health series no.13. Cat. no. AUS 156. Retrieved from https://www.aihw.gov.au/reports/australias-health/australias-health-2012/contents/table-of-contents

Australian Institute of Health and Welfare. (2017). *Mental health services provided in emergency departments*. Canberra: Commonwealth of Australia. Retrieved from https://www.aihw.gov.au/getmedia/1ffc85db-f620-48e8-8d94-57a375e132fe/Mental-health-services-provided-in-emergency-departments.pdf.aspx

Australian Institute of Health and Welfare. (2018). *Australia's health 2018*. Canberra: Australian Government Retrieved from https://www.aihw.gov.au/getmedia/1838295a-5588-4747-9515-b826a5ab3d5a/aihw-aus-221-chapter-3-12.pdf.aspx

Bambling, M., Kavanagh, D., Lewis, G., King, R., King, D., Sturk, H., . . . Bartlett, H. (2007). Challenges faced by general practitioners and allied mental health services in providing mental health services in rural Queensland. *The Australian Journal of Rural Health, 15*(2), 126-130. doi:https://doi.org/10.1111/j.1440-1584.2007.00866.x

Beaulieu, T., Patten, S., Knaak, S., Weinerman, R., Campbell, H., & Lauria-Horner, B. (2017). Impact of skill-based approaches in reducing stigma in primary care physicians: Results from a double-blind, parallel-cluster, randomized controlled trial. *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie, 62*(5), 327-335. doi:https://doi.org/10.1177/0706743716686919

Bendall, J., & Morrison, A. (2009). Clinical judgement. In P. O'Meara & C. Gribich (Eds.), *Paramedics in Australia. Contemporary challenges of practice* (pp. 96-111). New South Wales: Pearson Education Australia.

Bingham, H., & O'Brien, A. J. (2017). Educational intervention to decrease stigmatizing attitudes of undergraduate nurses towards people with mental illness. *International Journal of Mental Health Nursing, 27*(1), 311-319. doi:https://doi.org/10.1111/inm.12322

Björkman, T., Angelman, T., & Jönsson, M. (2008). Attitudes towards people with mental illness: a cross-sectional study among nursing staff in psychiatric and somatic care. *Scandinavian Journal of Caring Sciences, 22*(2), 170-177.

Booth, A., Scantlebury, A., Hughes-Morley, A., Mitchell, N., Wright, K., Scott, W., & McDaid, C. (2017). Mental health training programmes for non-mental health trained professionals coming into contact with people with mental ill health: a systematic review of effectiveness. *BMC Psychiatry, 17*(1), 196. doi:https://doi.org/10.1186/s12888-017-1356-5

Bowerman, L., Clifford, C., McMullen, P., & Stevens, S. (2013). *The assessment and management of patients presenting with a mental health crisis in the emergency setting: A literature review* Paper presented at the 14th International Mental Health Conference., Gold Coast, Australia.

Boyle, M. J., Williams, B., Brown, T., Molloy, A., McKenna, L., Molloy, E., & Lewis, B. (2010). Attitudes of undergraduate health science students towards patients with intellectual disability, substance abuse, and acute mental illness: a cross-sectional study. *BMC Medical Education, 10*(1), 71. doi:https://doi.org/10.1186/1472-6920-10-71

Bradley, E., Townsend, R., & Eburn, M. (2015). Paramedics and ACT mental health legislation. *Australasian Journal of Paramedicine, 12(4)*. doi:http://dx.doi.org/10.33151/ajp.12.4.236

Brady, M. (2014). Challenges UK paramedics currently face in providing fully effective end-of-life care. *International Journal of Palliative Nursing, 20*(1), 37-44. doi:https://doi.org/10.12968/ijpn.2014.20.1.37

Braun, V., & Clarke, V. (2013). *Successful qualitative research: a practical guide for beginners*. London: SAGE Publications Ltd.

Bringer, J. D., Johnston, L. H., & Brackenridge, C. H. (2004). Maximizing transparency in a doctoral thesis1: The complexities of writing about the use of qsr*nvivo within a grounded theory study. *Qualitative Research, 4*(2), 247-265. doi:https://doi.org/10.1177/1468794104044434

Broadbent, M., Jarman, H., & Berk, M. (2004). Emergency department mental health triage scales improve outcomes. *Journal of Evaluation in Clinical Practice, 10*(1), 57-62. doi:https://doi.org/10.1111/j.1365-2753.2003.00459.x

Brophy, M. (2006). *Truth Hurts. Report of the National Inquiry into Self-harm among Young People*. Retrieved from https://www.mentalhealth.org.uk/publications/truth-hurts-report1

Chiu-Yueh, H., Huei-Lan, L., & Yun-Fang, T. (2015). Factors influencing mental health nurses' attitudes towards people with mental illness. *International Journal of Mental Health Nursing, 24*(3), 272-280. doi:https://doi.org/10.1111/inm.12129

Clarke, D. E., Brown, A.-M., Hughes, L., & Motluk, L. (2006). Education to improve the triage of mental health patients in general hospital emergency departments. *Accident and Emergency Nursing, 14*(4), 210-218. doi:https://doi.org/10.1016/j.aaen.2006.08.005

Clarke, D. E., Dusome, D., & Hughes, L. (2007). Emergency department from the mental health client's perspective. *International Journal of Mental Health Nursing, 16*(2), 126-131. doi:https://doi.org/10.1111/j.1447-0349.2007.00455.x

Coleman, T. G., & Cotton, D. H. (2010). Reducing risk and improving outcomes of police interactions with people with mental illness. *Journal of Police Crisis Negotiations, 10*(1-2), 39-57. doi:https://doi.org/10.1080/15332581003756950

College of Emergency Nursing Australasia. (2015). Triage and the Australasian triage scale. Position statement. http://cena.org.au/wp-content/uploads/2014/10/Position-Statement-Triage-and-the-Australasian-Triage-Scale.pdf

Commons Treloar, & Lewis. (2008). Targeted clinical education for staff attitudes towards deliberate self-harm in borderline personality disorder: randomized controlled trial. *Australian & New Zealand Journal of Psychiatry, 42*(11), 981-988. doi:https://doi.org/10.1080/00048670802415392

Compton, M. T., Bahora, M., Watson, A. C., & Oliva, J. R. (2008). A comprehensive review of extant research on crisis intervention team (CIT) programs. *Journal of the American Academy of Psychiatry and the Law Online, 36*(1), 47.

Council of Australian Governments. (2012). The Roadmap for National Mental Health Reform 2012-2022. https://www.coag.gov.au/sites/default/files/communique/The%20Roadmap%20for%20National%20Mental%20Health%20Reform%202012-2022.pdf

Creswell, J. W. (2009). *Research design. Qualitative, quantitative, and mixed methods approaches*. United States of America: SAGE Publications, Inc.

Crisp, A., Gelder, M., Rix, S., Meltzer, H., & Rowlands, O. (2000). Stigmatisation of people with mental illnesses. *The British Journal of Psychiatry, 177*(1), 4-7. doi:https://doi.org/10.1192/bjp.177.1.4

Curtis, K., & Ramsden, C. (2016). *Emergency and trauma care for nurses and paramedics* (2 ed.): Elsevier Australia.

De Silva, E., Bowerman, L., & Zimitat, C. (2015). A suicide awareness and intervention program for health professional students. *Education for Health, 28*(3), 201-204. doi:https://doi.org/10.4103/1357-6283.178597

Department of Health. (2013). *Primary Health Care in Australia*. Commonwealth of Australia Retrieved from http://www.health.gov.au/internet/publications/publishing.nsf/Content/NPHC-Strategic-Framework~phc-australia

Department of Health and Ageing. (2013). *National Mental Health Report 2013. Tracking progress of mental health reform in Australia, 1993-2011*. Canberra: Commonwealth of Australia. Retrieved from http://www.health.gov.au/internet/main/publishing.nsf/Content/B090F03865A7FAB9CA257C1B0079E198/$File/rep13.pdf

Department of Health and Human Services. (2013). *2012-2013 Annual Report. Department of Health and Human Services*. Tasmania: Tasmanian Government. Retrieved from http://www.dhhs.tas.gov.au/__data/assets/pdf_file/0015/143232/DHHS_Annual_Report_2012-2013_-_Introduction_and_Part_1.pdf

Department of Health and Human Services. (2014a). *Industrial Relations Act 1984 Section 55. Ambulance Tasmania Agreement 2013*. Tasmania: Tasmanian Government. Retrieved from http://www.tic.tas.gov.au/__data/assets/pdf_file/0006/279933/T14187_Ambulance_Tasmania_Agreement_2013.pdf

Department of Health and Human Services. (2014b). *Mental Health Act 2013*. Tasmanian Government. Retrieved from https://www.dhhs.tas.gov.au/mentalhealth/mental_health_act/mental_health_act_2013_new_mental_health_act

Department of Health and Human Services. (2015). *Tasmanian Health Service*. Tasmanian Government. Retrieved from https://www.dhhs.tas.gov.au/tho

Department of Health and Human Services. (2017a). *2016-2017 Annual Report*. Tasmania: Tamanian Government. Retrieved from http://www.dhhs.tas.gov.au/__data/assets/pdf_file/0007/263437/DHHS_Annual_Report_-_2016-17_-_Part_1_-_Final.pdf

Department of Health and Human Services. (2017b). *Parkside Community Mental Health Team*. Tasmanian Government. Retrieved from

https://www.dhhs.tas.gov.au/service_information/service_delivery_points/parkside_community_mental_health_team

Dunn, M. J. G., Gwinnutt, C. L., & Gray, A. J. (2007). Critical care in the emergency department: patient transfer. *Emergency Medicine Journal, 24*(1), 40-44. doi:https://doi.org/10.1136/emj.2006.042044

Elbogen, E. B., & Johnson, S. C. (2009). The intricate link between violence and mental disorder: Results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry, 66*(2), 152-161. doi:https://doi.org/10.1001/archgenpsychiatry.2008.537

Ellison, J. C. (2010). Tasmania. In E. Bird (Ed.), Encyclopedia of the world's coastal landforms (Vol. 1, pp. 1395-1402): Springer, Dordrecht.

Emond, K., Furness, S., & Deacon-Crouch, M. (2015). Undergraduate paramedic students' perception of mental health using a pre- and post-questionnaire *Australasian Journal of Paramedicine, 12 (5)*. doi:http://dx.doi.org/10.33151/ajp.12.5.240

Eslake, S. (2016). *Tasmania Report 2016*. Retrieved from http://www.tcci.com.au/getattachment/Events/Tasmania-Report-2016/Tasmania-Report-2016-FINAL.pdf.aspx

Etikan, I., Musa, S., & Alkassim, R. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1-4. doi:https://doi.org/10.11648/j.ajtas.20160501.11

Ferguson, M. (2017). *Significant new investment in mental health*. Tasmanian Government. Retrieved from http://www.premier.tas.gov.au/releases/significant_new_investment_in_mental_health

Fernando, S. M., Deane, F. P., & McLeod, H. J. (2010). Sri Lankan doctors' and medical undergraduates' attitudes towards mental illness. *Social Psychiatry and Psychiatric Epidemiology, 45*(7), 733-739. doi:https://doi.org/10.1007/s00127-009-0113-6

Fleury, M.-J., Bamvita, J.-M., Farand, L., & Tremblay, J. (2008). Variables associated with general practitioners taking on patients with common mental disorders. *Mental Health in Family Medicine, 5*(3), 149-160.

Flick, U., Metzler, K., & Scott, W. (2014). *The SAGE Handbook of Qualitative Data Analysis*. London: SAGE Publications Ltd.

Gerdtz, M. F., Weiland, T. J., Jelinek, G. A., Mackinlay, C., & Hill, N. (2012). Perspectives of emergency department staff on the triage of mental health-related presentations: Implications for education, policy and practice. *Emergency Medicine Australasia, 24*(5), 492-500. doi:https://doi.org/10.1111/j.1742-6723.2012.01592.x

Ghodse, A. H. (1978). The attitudes of casualty staff and ambulance personnel towards patients who take drug overdoses. *Social Science & Medicine. Part A: Medical Psychology & Medical Sociology, 12*, 341-346. doi:https://dx.doi.org/10.1016/0271-7123(78)90087-1

Godfredson, J., Thomas, S., Ogloff, J., & Luebbers, S. (2011). Police perceptions of their encounters with individuals experiencing mental illness: A Victorian survey. *Australian & New Zealand Journal of Criminology, 44*(2), 180-195. doi:https://doi.org/10.1177/0004865811405138

Green, E. (1989). Management of violent behavior. *Journal of Emergency Nursing, 15*(6), 523-528.

Guru, V., Verbeek, P. R., & Morrison, L. J. (1999). Response of paramedics to terminally ill patients with cardiac arrest: an ethical dilemma. *Canadian Medical Association Journal, 161*(10), 1251.

Happell, B. (1998). The implications of legislative change on the future of psychiatric nursing in Victoria. *Australian and New Zealand Journal of Psychiatry, 32*(2), 229-234. doi:https://doi.org/10.3109/00048679809062733

Happell, B. (2007). Appreciating the importance of history: a brief historical overview of mental health, mental health nursing and education in Australia. *International Journal of Psychiatric Nursing Research, 12*(2), 1439-1445.

Happell, B. (2010). Moving in circles: A brief history of reports and inquiries relating to mental health content in undergraduate nursing curricula. *Nurse Education Today, 30*(7), 643-648.

Happell, B., & Gaskin, C. J. (2013). The attitudes of undergraduate nursing students towards mental health nursing: A systematic review. *Journal of Clinical Nursing, 22*(1-2), 148-158. doi:https://doi.org/10.1111/jocn.12022

Happell, B., & McAllister, M. (2015). The challenges of undergraduate mental health nursing education from the perspectives of heads of schools of nursing in Queensland, Australia. *Collegian, 22*(3), 267-274. doi:https://doi.org/10.1016/j.colegn.2014.01.004

Harris, J. (2000). Self-harm: Cutting the bad out of me. *Qualitative Health Research, 10*(2), 164-173. doi:https://doi.org/10.1177/104973200129118345

Hasin, D. S., & Grant, B. F. (2015). The national epidemiologic survey on alcohol and related conditions (nesarc) waves 1 and 2: Review and summary of findings. *Social Psychiatry and Psychiatric Epidemiology, 50*(11), 1609-1640. doi:https://doi.org/10.1007/s00127-015-1088-0

headspace. (2018). headspace Hobart. Retrieved from https://headspace.org.au/headspace-centres/Hobart?gclid=Cj0KCQjwl9zdBRDgARIsAL5Nyn1DACVXLM9O9QLS-3UlyeRvtauFyIaGw7h8hyDy1RmWBEJFSy6a40caAkfeEALw_wcB

Herrington, V., & Pope, R. (2014). The impact of police training in mental health: an example from Australia. *Policing and Society, 24*(5), 501-522. doi:https://doi.org/10.1080/10439463.2013.784287

Hesse-Biber, S. (2010). *Mixed Methods Research: Merging Theory with Practice.* New York: Guilford Press.

Hickie, I. B., Davenport, T. A., Naismith, S. L., Scott, E. M., & Secretariat, S. N. (2001). Conclusions about the assessment and management of common mental disorders in Australian general practice. *Medical Journal of Australia, 175*(S1), S52-S55. doi:https://doi.org/10.5694/j.1326-5377.2001.tb143791.x

Hodgins, G., Judd, F., Davis, J., & Fahey, A. (2007). An integrated approach to general practice mental health training: The importance of context. *Australasian Psychiatry, 15*(1), 52-57. doi:https://doi.org/10.1080/10398560601083019

Hundertmark, J. (2002). The impact of mainstreaming on patient care in Australian emergency departments and liaison services. *Australian and New Zealand Journal of Psychiatry, 36*(3), 424-424. doi:https://doi.org/10.1046/j.1440-1614.2001.01030.x

Hungerford, Clancy, Hodgson, & Jones. (2012). *Mental health care. An introdution for health professionals*. Australia: John Wiley & Sons.

Jorm, A. F. (2000). Mental health literacy: Public knowledge and beliefs about mental disorders. *British Journal of Psychiatry, 177*(5), 396-401. doi:https://doi.org/10.1192/bjp.177.5.396

Jorm, A. F., Kitchener, B. A., O'Kearney, R., & Dear, K. B. (2004). Mental health first aid training of the public in a rural area: a cluster randomized trial [ISRCTN53887541]. *BMC Psychiatry, 4*, 33. doi:https://doi.org/10.1186/1471-244X-4-33

Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., Rodgers, B., & Pollitt, P. (1997). "Mental health literacy": a survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *Medical Journal of Australia, 166*, 182 - 186.

Keane, B. (1987). *Study of mental health nursing in Australia (report to the nursing and health services workforce branch).* Canberra: Commonwealth Department of Health, Australian Government Printing Service.

Kitchener, B. A., & Jorm, A. F. (2004). Mental health first aid training in a workplace setting: A randomized controlled trial [ISRCTN13249129]. *BMC Psychiatry, 4*(1), 23.

Kitchener, B. A., Jorm, A. F., & Kelly, C. M. (2017). *Mental health first aid manual* (4th ed.). Melbourne: Mental Health First Aid Australia.

Knaak, S., & Patten, S. (2016). A grounded theory model for reducing stigma in health professionals in Canada. *Acta Psychiatrica Scandinavica, 134*(S446), 53-62. doi:https://doi.org/10.1111/acps.12612

Lauber, C., & Rössler, W. (2007). Stigma towards people with mental illness in developing countries in Asia. *International Review of Psychiatry, 19*(2), 157-178. doi:https://doi.org/10.1080/09540260701278903

Laursen, T. M., Munk-Olsen, T., & Gasse, C. (2011). Chronic somatic comorbidity and excess mortality due to natural causes in persons with schizophrenia or bipolar affective disorder. *PLOS ONE,, 6*(9), e24597. doi:https://doi.org/10.1371/journal.pone.0024597

Lawrence, D., Johnson, S., Hafekost, J., Boterhoven de Haan, K., Sawyer, M., Ainley, J., & Zubrick, S. (2015). *The mental health of children and adolescents report on the second australian child and adolescent survey of mental health and wellbeing* (11097). Retrieved from Canberra: http://health.gov.au/internet/main/publishing.nsf/Content/mental-pubs-m-child2

Leff, J., Sartorius, N., Jablensky, A., Korten, A., & Ernberg, G. (1992). The international pilot study of schizophrenia: five-year follow-up findings. *Psychol Med, 22(1)*, 131-145.

Liamputtong, P. (2010). *Research Methods in Health: Foundations for Evidence-Based Practice*. Australia: Oxford University Press.

Linden, M., & Kavanagh, R. (2012). Attitudes of qualified vs. student mental health nurses towards an individual diagnosed with schizophrenia. *Journal of Advanced Nursing, 68*(6), 1359-1368. doi:https://doi.org/10.1111/j.1365-2648.2011.05848.x

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology, 27*(1), 363-385. doi:https://doi.org/10.1146/annurev.soc.27.1.363

Lord, B. (2003). The Development of a Degree Qualification for Paramedics at Charles Sturt University. *Journal of Emergency Primary Health Care, 1*(1-2).

Mackenzie, N., & Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues in Educational Research, 16*(2), 193-205.

MacRae, R., & Skinner, K. (2011). Learning for the twenty-first century: Maximising learning transfer from learning and development activity. *Social Work Education, 30*(8), 981-994. doi:https://doi.org/10.1080/02615479.2010.520118

Magliano, L., Punzo, R., Strino, A., Acone, R., Affuso, G., & Read, J. (2016). General practitioners' beliefs about people with schizophrenia and whether they should be subject to discriminatory treatment when in medical hospital: The mediating role of dangerousness perception. *American Journal of Orthopsychiatry, 87*(5), 559-566.

Mai, Q., Holman, C. D., Sanfilippo, F. M., Emery, J. D., & Preen, D. B. (2011). Mental illness related disparities in diabetes prevalence, quality of care and outcomes: a population-based longitudinal study. *BMC Medicine, 9*, 118-118. doi:https://doi.org/10.1186/1741-7015-9-118

Malterud, K. (2001). Qualitative research: standards, challenges, and guidelines. *Lancet, 358*(9280), 483.

Martínez, L. E. (2010). Police departments' response in dealing with persons with mental illness. *Journal of Police Crisis Negotiations, 10*(1-2), 166-174. doi:https://doi.org/10.1080/15332581003785462

McGinty, E. E., Webster, D. A., & Barry, C. L. (2013). Effects of news media messages about mass shootings on attitudes toward persons with serious mental illness and public support for gun control policies. *American Journal of Psychiatry, 170*(5), 494-501. doi:https://doi.org/10.1176/appi.ajp.2013.13010014

McKee, B. D., Larose-Pierre, M., & Rappa, L. R. (2015). A survey of community pharmacists and final-year student pharmacists and their perception of psychotherapeutic agents. *Journal of Pharmacy Practice, 28*(2), 166-174.

Mertens, D. (2010). *Research and evaluation in education and psychology. Integrating diversity with quantitaive, qualitative, and mixed methods* (3rd ed.). United States of America: SAGE Publications, Inc.

Moran-Ellis, J., Alexander, V. D., Cronin, A., Dickinson, M., Fielding, J., Sleney, J., & Thomas, H. (2006). Triangulation and integration: processes, claims and implications. *Qualitative Research, 6*(1), 45-59. doi:https://doi.org/10.1177/1468794106058870

Morgan, V., Waterreus, A., Jablensky, A., Mackinnon, A., McGrath, J., Carr, V., . . . Saw, S. (2012). People living with psychotic illness in 2010: The second Australian national survey of psychosis. *Australian & New Zealand Journal of Psychiatry, 46*(8), 735-752. doi:https://doi.org/10.1177/0004867412449877

Mukherjee, R., Fialho, A., Wijetunge, A., Checinski, K., & Surgenor, T. (2002). The stigmatisation of psychiatric illness: The attitudes of medical students and doctors in a London teaching hospital. *Psychiatric Bulletin, 26*(5), 178-181. doi:https://doi.org/10.1192/pb.26.5.178

Munro, S., & Baker, J. A. (2007). Surveying the attitudes of acute mental health nurses. *Journal of Psychiatric & Mental Health Nursing, 14*(2), 196-202. doi:https://doi.org/10.1111/j.1365-2850.2007.01063.x

Murphy, A. L., Phelan, H., Haslam, S., Martin-Misener, R., Kutcher, S. P., & Gardner, D. M. (2016). Community pharmacists' experiences in mental illness and addictions care: A qualitative study. *Substance Abuse: Treatment, Prevention, and Policy, 11*(1). doi:https://doi.org/10.1186/s13011-016-0050-9

Nash, M. (2013). Diagnostic overshadowing: a potential barrier to physical health care for mental health service users. *Mental Health Practice, 17*(4), 22-26.

National Health and Medical Research Council. (2007 (Updated 2018). *National Statement on Ethical Conduct in Human Research 2007. (Updated 2018)*. Canberra: Commonwealth of Australia. Retrieved from https://www.nhmrc.gov.au/about-us/publications/national-

statement-ethical-conduct-human-research-2007-updated-2018#block-views-block-file-attachments-content-block-1

National Mental Health Commission. (2014). *The National Review of Mental Health Programmes and Services.* Sydney: Commonwealth of Australia. Retrieved from https://mhfa.com.au/sites/default/files/vol2-review-mh-programmes-services.pdf

National Mental Health Commission. (2016). *Annual Report 2015-2016*. Sydney: Commonwealth of Australia. Retrieved from http://www.mentalhealthcommission.gov.au/

National Mental Health Commission. (2017). *The 2016 Report on Mental Health and Suicide Prevention. Sydney: NMHC; 2017.* Sydney: National Mental Health Commission. Retrieved from http://www.mentalhealthcommission.gov.au/media/188863/The_2016_National_Report.pdf

Neeki, M. M., Dong, F., Avera, L., Than, T., Borger, R., Powell, J., … Pitts, R. (2016). Alternative destination transport? The role of paramedics in optimal use of the emergency department. *Western Journal of Emergency Medicine, 17*(6), 690-697. doi:https://doi.org/10.5811/westjem.2016.9.31384

O'Reilly, C. L., Bell, J., & Chen, T. F. (2010). Pharmacists' beliefs about treatments and outcomes of mental disorders: A mental health literacy survey. *Australian and New Zealand Journal of Psychiatry, 44*(12), 1089-1096.

O'Sullivan, B. (2014). Paramedic attitudes to deliberate self-harming behaviour in Ireland. *Journal of Paramedic Practice, 6*(3), 116-118.

Ogloff, J., Thomas, S., Luebbers, S., Baksheev, G., Elliott, I., Godfredson, J., … Moore, E. (2013). *Policing services with mentally ill people: Developing greater understanding and best practice* (Vol. 48).

Parsons, V., & O'Brien, L. (2011). Paramedic clinical decision-making in mental health care: a new theoretical approach. *Journal of Paramedic Practice, 3*(10), 572-579.

Parsons, V., O'Brien, L., & O'Meara, P. (2011). Mental health legislation: an era of change in paramedic clinical practice and responsibility. *International Paramedic Practice, 1*(1), 9-16. doi:https://doi.org/10.12968/ippr.2011.1.1.9

Partridge, E. (2013). Police to tackle mental health. *The Sydney Morning Herald*. Retrieved from https://www.smh.com.au/national/nsw/police-to-tackle-mental-health-20130731-2qzcn.html

Philo, G., Secker, J., Platt, S., Henderson, L., McLaughlin, G., & Burnside, J. (1994). The impact of the mass media on public images of mental illness: media content and audience belief. *Health Education Journal, 53*(3), 271-281. doi:https://doi.org/10.1177/001789699405300305

Phokeo, V., Sproule, B., & Raman-Wilms, L. (2004). Community pharmacists' attitudes toward and professional interactions with users of psychiatric medication. *Psychiatric Services, 55*(12), 1434-1436. doi:https://doi.org/10.1176/appi.ps.55.12.1434

Polgar, S., & Thomas, S. (2008). *Introduction to Research in the Health Sciences* (Fifth ed.). Sydney: Churchill Livingstone Elsevier.

Prener, C., & Lincoln, A. K. (2015). Emergency medical services and "psych calls": Examining the work of urban ems providers. *American Journal of Orthopsychiatry, 85*(6).

Queensland Government. (2012). *Mental Health Act 2000*. Retrieved from https://www.legislation.qld.gov.au/view/pdf/2012-09-17/act-2000-016

Queensland Government. (2017). *Clinical Practice Procedures: Behavioural Disturbances/Emergency Examination Authority*. Department of Health (Queensland Ambulance Service). Retrieved from https://www.ambulance.qld.gov.au/clinical.html

Rabkin, J. (1974). Public attitudes toward mental illness: A review of the literature. *Schizophrenia Bulletin, 1*(10), 9-33.

Reavley, N. J., Mackinnon, A. J., Morgan, A. J., & Jorm, A. F. (2014). Stigmatising attitudes towards people with mental disorders: A comparison of Australian health professionals

with the general community. *Australian and New Zealand Journal of Psychiatry, 48*(5), 433-441. doi:https://doi.org/10.1177/0004867413500351

Rees, N. N., Rapport, F., & Snooks, H. (2015). Perceptions of paramedics and emergency staff about the care they provide to people who self-harm: Constructivist metasynthesis of the qualitative literature. *Journal of Psychosomatic Research, 78*(6), 529-535. doi:https://dx.doi.org/10.1016/j.jpsychores.2015.03.007

Rees, N. N., Rapport, F., Snooks, H., John, A., & Patel, C. (2017). How do emergency ambulance paramedics view the care they provide to people who self harm?: Ways and means. *International Journal of Law and Psychiatry, 50*, 61-67.

Rees, N. N., Rapport, F., Thomas, G., John, A., & Snooks, H. (2014). Perceptions of paramedic and emergency care workers of those who self harm: A systematic review of the quantitative literature. *Journal of Psychosomatic Research, 77*(6), 449-456.

Richards, J. C., Ryan, P., McCabe, M. P., Groom, G., & Hickie, I. B. (2004). Barriers to the effective management of depression in general practice. *Australian & New Zealand Journal of Psychiatry, 38*(10), 795-803. doi:https://doi.org/10.1111/j.1440-1614.2004.01464.x

Roberts, L., & Henderson, J. (2009). Paramedic perceptions of their role, education, training and working relationships when attending cases of mental illness. *Journal of Emergency Primary Health Care, 7*(3).

Roe, M., & Scott, P. (2017). Tasmania island and state, Australia. In *Encyclopaedia Britannica, Inc*.

Russell, G., & Potter, L. (2002). Mental health issues in primary healthcare. *Journal of Clinical Nursing, 11*(1), 118-125. doi:https://doi.org/10.1046/j.1365-2702.2002.00588.x

Rutter, P., Taylor, D., & Branford, D. (2013). Mental health curricula at schools of pharmacy in the united kingdom and recent graduates' readiness to practice. *American Journal of Pharmaceutical Education, 77*(7), 147. doi:https://doi.org/10.5688/ajpe777147

Ryan, G. W., & Bernard, H. R. (2003). Techniques to Identify Themes. *Field Methods, 15*(1), 85-109. doi:https://doi.org/10.1177/1525822x02239569

Saldaña, J. (2010). *The Coding Manual for Qualitative Researchers*. London: SAGE Publications Ltd.

Santucci, K., Sather, J., & Baker, D. (2003). Emergency medicine training programs' educational requirements in the management of psychiatric emergencies: Current perspective. *Pediatric Emergency Care, 19(3)*, 154–156. doi:https://doi.org/10.1097/01.pec.0000081235.20228.7a

Sartorius, N. (2007). Stigma and mental health. *The Lancet, 370*(9590), 810-811. doi:https://doi.org/10.1016/S0140-6736(07)61245-8

Sellers, C. L., Sullivan, C. J., Veysey, B. M., & Shane, J. M. (2005). Responding to persons with mental illnesses: police perspectives on specialized and traditional practices. *Behavioral Sciences & the Law, 23*(5), 647-657. doi:https://doi.org/10.1002/bsl.633

Shaban, R. (2004). Mental health and mental illness in paramedic practice: A warrant for research and inquiry into accounts of paramedic clinical judgment and decision-making. *Australasian Journal of Paramedicine,, Vol. 2,*(Issue 3-4). doi:http://dx.doi.org/10.33151/ajp.2.3.285

Shefer, G., Henderson, C., Howard, L. M., Murray, J., & Thornicroft, G. (2014). Diagnostic overshadowing and other challenges involved in the diagnostic process of patients with mental illness who present in emergency departments with physical symptoms – a qualitative study. *PLOS ONE,, 9*(11), e111682. doi:https://doi.org/10.1371/journal.pone.0111682

Smart, D., Pollard, C., & Walpole, B. (1999). Mental health triage in emergency medicine. *Australian and New Zealand Journal of Psychiatry, 33*(1), 57-66. doi:https://doi.org/10.1046/j.1440-1614.1999.00515.x

Smith, C. T., Chen, A. M. H., Plake, K. S., & Nash, C. L. (2012). Evaluation of the impact of a diabetes education curriculum for school personnel on disease knowledge and

confidence in caring for students. *Journal of School Health, 82*(10), 449-456. doi:https://doi.org/10.1111/j.1746-1561.2012.00721.x

Stone, S. C., Abbott, J., McClung, C. D., Colwell, C. B., Eckstein, M., & Lowenstein, S. R. (2017). Paramedic knowledge, attitudes, and training in end-of-life care. *Prehospital and Disaster Medicine, 24*(6), 529-534. doi:https://doi.org/10.1017/S1049023X00024158

Speziale, H. S., & Carpenter, D. R. (2011). *Qualitative Research in Nursing: Advancing the Humanistic Imperative* (5th ed.). Philadelphia: Lippincott Williams & Wilkins.

Swartz, M. S., Swanson, J. W., Hiday, V., Borum, R., Wagner, H. R., & Burns, B. (1998). Violence and severe mental illness: The effects of substance abuse and nonadherence to medication. *American Journal of Psychiatry, 155*(2), 226-231. doi:https://doi.org/10.1176/ajp.155.2.226

Tashakkori, A., & Creswell, J. W. (2007). Editorial: The new era of mixed methods. *Journal of Mixed Methods Research, 1*(1), 3-7. doi:https://doi.org/10.1177/2345678906293042

Tasmanian Government. (2014). *Mental Health Act 2013*. Tasmanian Government. Retrieved from http://www.dhhs.tas.gov.au/mentalhealth/mental_health_act/mental_health_act_2013_new_mental_health_act

Tasmanian Government. (2017a). *Export Statistics*. Tasmanian Government. Retrieved from https://www.stategrowth.tas.gov.au/business/trade/export_overview/export_statistics

Tasmanian Government. (2017b). *Our Organisation*. Tasmanian Government. Retrieved from http://www.dhhs.tas.gov.au/about_the_department/organisational_structure

Tasmanian Government. (2017c). *Review of Ambulance Tasmania Clinical and Operational Services - Final Report*. Tasmanian Government. Retrieved from https://www.dhhs.tas.gov.au/about_the_department/our_plans_and_strategies/at_review

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research. Integrating quantitative and qualitative approaches in the social and behavioural sciences*. United States of America: SAGE Publications, Inc.

Terry, J., & Cutter, J. (2013). Does education improve mental health practitioners' confidence in meeting the physical health needs of mental health service users? A mixed methods pilot study. *Issues in Mental Health Nursing, 34*(4), 249-255. doi:https://doi.org/10.3109/01612840.2012.740768

The Council of Ambulance Authorities. (2013). Paramedic Professional Competency Standards Version 2.2. Retrieved from https://www.caa.net.au/images/documents/resources_for_universities/Paramedic_Professional_Competency_Standards_V2.2_February_2013_PEPAS.pdf

The Council of Ambulance Authorities Inc, A. N. Z. (2017). Paramedic education. Retrieved from http://www.caa.net.au/paramedic-education

Tourism Tasmania. (2017). Freycinet National Park. Retrieved from https://www.discovertasmania.com.au/about/national-parks-and-wilderness/freycinet-national-park-wineglass-bay

Townsend, R., & Luck, M. (2009). Protective jurisdiction, patient autonomy and paramedics: the challenges of applying the NSW Mental Health Act. *Journal of Emergency Primary Health Care, 7*(4).

Townsend, R., & Luck, M. (2013). *Applied Paramedic Law and Ethics: Australia and New Zealand*. Chatswood, NSW: Elsevier Australia.

Usher, K., Park, T., Trueman, S., Redman-Maclaren, M., Casella, E., & Woods, C. (2014). An educational program for mental health nurses and community health workers from pacific island countries: results from a pilot study. *Issues in Mental Health Nursing, 35*(5), 337-343. doi:https://doi.org/10.3109/01612840.2013.868963

van Boekel, L. C., Brouwers, E. P., van Weeghel, J., & Garretsen, H. F. (2015). Comparing stigmatising attitudes towards people with substance use disorders between the general

public, GPs, mental health and addiction specialists and clients. *International Journal of Social Psychiatry, 61*(6), 539-549.

Walker, J. (2009). Educating paramedics. In P. O'Meara, C. Grbich (Eds.), *Paramedics in Australia: Contemporary challenges of practice,* 152-164. Sydney Australia: Pearson Education Australia.

Walker, M., Jensen, J. L., Leroux, Y., McVey, J., & Carter, A. E. (2013). The impact of intense airway management training on paramedic knowledge and confidence measured before, immediately after and at 6 and 12 months after training. *Emergency Medicine Journal, 30*(4), 334-338. doi:https://doi.org/10.1136/emermed-2011-200839

Whitson. R. (2019). Ambulance ramping causing 'undeniable psychological stress' to Tasmanian paramedics [Press release]. Retrieved from https://www.abc.net.au/news/2019-05-01/tasmanian-paramedics-mental-health-hit-by-ambulance-ramping/11060410

Williams, B., Brown, T., McKenna, L., Boyle, M. J., Palermo, C., Nestel, D., . . . Russo, V. (2014). Empathy levels among health professional students: a cross-sectional study at two universities in Australia. *Advances in Medical Education and Practice,, 5*, 107-113. doi:http://doi.org/10.2147/AMEP.S57569

Winkler, P., Mladá, K., Janoušková, M., Weissová, A., Tušková, E., Csémy, L., & Evans-Lacko, S. (2016). Attitudes towards the people with mental illness: comparison between Czech medical doctors and general population. *Social Psychiatry and Psychiatric Epidemiology*, 1-9. doi:https://doi.org/10.1007/s00127-016-1263-y

World Health Organization. (2013). Mental Health Action Plan 2013-2020. Retrieved from http://www.who.int/mental_health/action_plan_2013/bw_version.pdf?ua=1

World Health Organization. (2017). World Health Organization: Suicide data 2017. Retrieved from https://www.who.int/mental_health/prevention/suicide/suicideprevent/en/

Wyatt, A. (2003). Paramedic practice – knowledge invested in action. *Australasian Journal of Paramedicine,, 1(3)*. doi:http://dx.doi.org/10.33151/ajp.1.3.211

Yap, M. B. H., Mackinnon, A., Reavley, N., & Jorm, A. F. (2014). The measurement properties of stigmatizing attitudes towards mental disorders: results from two community surveys. *International Journal of Methods in Psychiatric Research, 23*(1), 49-61. doi:https://doi.org/10.1002/mpr.1433

Yauch, C. A., & Steudel, H. J. (2003). Complementary use of qualitative and quantitative cultural assessment methods. *Organizational Research Methods, 6*(4), 465-481. doi:https://doi.org/10.1177/1094428103257362

Appendix 1.

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HUMAN RESEARCH ETHICS COMMITTEE (TASMANIA) NETWORK

UTAS

01 March 2013

Dr Stella Stevens
C/- Medicine

Sent via email

Dear Dr Stevens

REF NO: H0012899
TITLE: Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicide ideations?

PROTOCOL
NEAF
Consent Form dated 28 Jan 2013
Information Sheet dated 28 Jan 2013

The Tasmania Health and Medical Human Research Ethics Committee considered and approved the above documentation on **01 March 2013**.

This approval constitutes ethical clearance by the Health and Medical HREC. The decision and authority to commence the associated research may be dependent on factors beyond the remit of the ethics review process. For example, your research may need ethics clearance from other organisations or review by your research governance coordinator or Head of Department. It is your responsibility to find out if the approval of other bodies or authorities are required. It is recommended that the proposed research should not commence until you have satisfied these requirements.

All committees operating under the Human Research Ethics Committee (Tasmania) Network are registered and required to comply with the *National Statement on the Ethical Conduct in Human Research* (NHMRC 2007 updated 2009).

Therefore, the Chief Investigator's responsibility is to ensure that:

(1) The individual researcher's protocol complies with the HREC approved protocol.

(2) Modifications to the protocol do not proceed until **approval** is obtained in writing from the HREC.

(3) Section 5.5.3 of the National Statement states:

Researchers have a significant responsibility in monitoring approved research as they are in the best position to observe any adverse events or unexpected outcomes. They should report such events or outcomes promptly to the relevant institution/s and ethical review

body/ies and take prompt steps to deal with any unexpected risks.

The appropriate forms for reporting such events in relation to clinical and non-clinical trials and innovations can be located at the website below. All adverse events must be reported regardless of whether or not the event, in your opinion, is a direct effect of the therapeutic goods being tested.
http://www.research.utas.edu.au/human_ethics/medical_forms.htm

(4) All research participants must be provided with the current Patient Information Sheet and Consent Form, unless otherwise approved by the Committee.

(5) The Committee is notified if any investigators are added to, or cease involvement with, the project.

(6) This study has approval for 4 years contingent upon annual review. A *Progress Report* is to be provided on the anniversary date of your approval. Your first report is due 1 march 2014 You will be sent a courtesy reminder closer to this due date.

(7) A *Final Report* and a copy of the published material, either in full or abstract, must be provided at the end of the project.

Should you have any queries please do not hesitate to contact me on (03) 6226 2764.

Yours sincerely

Lauren Townsend
Ethics Administrator
Office of Research Services
Tel: +61 (03) 6226 2764
Email: Lauren.Townsend@utas.edu.au
University of Tasmania
Private Bag 01 Hobart Tas 7001

Appendix 2.

School of Medicine

Project Title

Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicide ideations?

Ambulance Tasmania Paramedics

1. Invitation

You have been invited to participate in research investigating the link between mental health literacy and confidence and attitudes of paramedics when managing patients with mental health problems and or suicide ideation.

The research team is made up of 3 experienced researchers and 1 PhD candidate. All team members are employed at UTAS as Senior Lecturers in the School of Medicine. All researchers have expertise in health education.

Associate Professor Stella Stevens is the Associate Head Post graduate studies.

Dr. Paula McMullen is a Senior Lecturer in Paramedic Practice and coordinator of the Paramedic Degree at the Sydney campus.

Dr. Christine Clifford is a Senior Lecturer in the School of Medicine and Consultant Psychologist at the RHH.

Ms. Lisa Bowerman is a PhD candidate with the School of Medicine. She is also a Senior Lecturer in Paramedic Practice and coordinator of the Paramedic Degree at the Hobart campus

2. What is the purpose of this study?

This research aims to investigate the following:

1. The number of paramedic cases to attend patients presenting with mental health problems and or suicide ideations by Ambulance Tasmania paramedics;

2. Mental health literacy in paramedics;

3. Attitudinal behaviors and confidence of paramedics when required to manage patients with mental illness and or suicide ideations;

4. Whether disparities in mental health literacy influence these attitudes and confidence;

5. Gaps in mental health literacy;

6. To assess the effectiveness of an intervention program to improve mental health literacy.

3. Why have I been invited to participate?

You have been invited to participate in this research project because you are a paramedic currently employed with Ambulance Tasmania.

4. What will I be asked to do?

You will be required to partake in a 30 minute face to face interview with the principle researcher Lisa Bowerman. These interviews will be delivered at a place of your choosing for example workplace or home. The interviews will also be voice recorded.

If you feel uncomfortable about answering any questions asked, you may freely choose not to answer.

After the data has been collected and collated, you will be invited to complete an online learning package (approximately 60 minutes) aimed to address any gaps identified from the interview process. You will be able to complete this in your own time.

You will then be invited to participate in a post training interview lasting approximately 20 minutes. Once again this will be delivered at a place of your choosing.

5. Are there any possible benefits from participation in this study?

The possible benefits stemming from this research are substantial in regards to mental health care in the out of hospital setting. Through your participation you will have the opportunity to improve mental health literacy levels in paramedics which will lead to improved patient outcomes.

6. Are there any possible risks from participation in this study?

You will not risk harm by enrolling in this research project. If at any time you feel uncomfortable about answering any of the questions posed, you may freely choose not to

answer. If you experience any discomfort from the questions posed in the interview Dr Christine Clifford (psychologist and counselor) will be available to assist of refer appropriately.

You will also have an opportunity to review your audio recording and have the opportunity to remove any dialogue you are not happy with prior to data analysis.

You can contact the School of Medicine Head of School Professor James Vickers James.Vickers@utas.edu.au to discuss any concerns or complaints about the project or interview.

7. What if I change my mind during or after the study?

You are advised that you may withdraw from the research project at any time and you will not be disadvantaged in any way if they choose to. You are also advised that you do not have to participate in all of the study processes if you chose not to.

8. What will happen to the information when this study is over?

De-identified data will be kept in a password protected file electronically and hard copies stored in a locked filing cabinet in the Medical Science Precinct. The paper copies will be shredded at the completion of the research. The electronic data will be kept for a period of five years and then destroyed.

Your personal details will not be collected; you will be identified only as an AT paramedic and by a number.

It is the intent of the researchers to complete and submit articles based on the data collected throughout the PhD candidature. These will then inform the PhD thesis. All participants will receive information about the data, any issues identified and strategies that will be implemented based on information found.

9. What if I have questions about this study?

If participants have any questions regarding this research, please feel free to contact any of the researchers listed below:

Stella Stevens: stella.stevens@utas.edu.au 03 62626 4683

Lisa Bowerman: Lisa.bowerman@utas.edu.au 03 6226 4733

Dr. Christine Clifford: Christine.clifford@utas.edu.au 03 6226 4887

Dr. Paula McMullen: paula.mcmullen@utas.edu.au 02

School of Medicine

"This study has been approved by the Tasmanian Health and Medical Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study, please contact the Executive Officer of the HREC (Tasmania) Network on (03) 6226 7479 or email human.ethics@utas.edu.au. The Executive Officer is the person nominated to receive complaints from research participants. Please quote ethics reference number H0012899

This information sheet is for you as a participant to keep.

Participants will be asked to complete a separate consent form.

Appendix 3.

CONSENT FORM

Title of Project:

Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicide ideations?

---

1. I confirm that the nature, purpose and contemplated effects of the project so far as it affects me, have been fully explained to my satisfaction by the researcher.

2. I confirm my consent is given voluntarily.

3. I confirm that I have read the information sheet for this study and understand the expectations of me participating in this research study.

4. I understand the structure of this research study is as follows:

   - I will participate in a one to one interview lasting 30 minutes.
   - I will be invited to participate in an online training programme lasting 60 minutes.
   - I will be invited to participate in a 20 minute post training programme interview.

5. I understand that participation in this study will result in no foreseeable risks to me.

6. I understand that I may withdraw from this research study at any time and this will not result in me being disadvantaged in any way.

7. I understand that my confidentiality will be maintained at all times.

8. I understand that the results of this study will be published

School of Medicine

9. I understand the data collected will be stored securely at the University of Tasmania in both hard copy and electronically.

10. I understand that the research study will be conducted in accordance with the latest versions of the *National Statement on Ethical Conduct in Human Research 2007* and applicable privacy laws.

Participant's Name _____

Participant's Signature _____

Participant's Email _____

Researcher's Name _____

Researcher's Signature _____

Date _____

Appendix 4.

Office of Research Services
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Private Bag 1
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Email Human.Ethics@utas.edu.au
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HUMAN RESEARCH ETHICS COMMITTEE (TASMANIA) NETWORK

UTAS

20 December 2016

Dr Christine Clifford
[C/O School of Nursing, Midwifery and Paramedicine]

Sent via email

Dear Dr Clifford

REF NO: H0016135
TITLE: Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicide ideations?

Document	*Version*	*Date*
NEAF		
Protocol		
Information Sheet		
Questionnaire		
Email to Participants		

The Tasmanian Health and Medical Human Research Ethics Committee considered and approved the above documentation on **14 December 2016** to be conducted at the following site(s):

University of the Sunshine Coast
University of Tasmania

Please ensure that all investigators involved with this project have cited the approved versions of the documents listed within this letter and use only these versions in conducting this research project.

This approval constitutes ethical clearance by the Health and Medical HREC. The decision and authority to commence the associated research may be dependent on factors beyond the remit of the ethics review process. For example, your research may need ethics clearance from other organisations or review by your research governance coordinator or Head of Department. It is your responsibility to find out if the approvals of other bodies or authorities are required. It is recommended that the proposed research should not commence until you have satisfied these requirements.

All committees operating under the Human Research Ethics Committee (Tasmania) Network are registered and required to comply with the *National Statement on the Ethical Conduct in Human Research* (NHMRC 2007 updated 2014).

Therefore, the Chief Investigator's responsibility is to ensure that:

(1) The individual researcher's protocol complies with the HREC approved protocol.

(2) Modifications to the protocol do not proceed until **approval** is obtained in writing from the HREC. Please note that all requests for changes to approved documents must include a version number and date when submitted for review by the HREC.

(3) Section 5.5.3 of the National Statement states:

Researchers have a significant responsibility in monitoring approved research as they are in the best position to observe any adverse events or unexpected outcomes. They should report such events or outcomes promptly to the relevant institution/s and ethical review body/ies and take prompt steps to deal with any unexpected risks.

The appropriate forms for reporting such events in relation to clinical and non-clinical trials and innovations can be located at the website below. All adverse events must be reported regardless of whether or not the event, in your opinion, is a direct effect of the therapeutic goods being tested. http://www.utas.edu.au/research-admin/research-integrity-and-ethics-unit-rieu/human-ethics/human-research-ethics-review-process/health-and-medical-hrec/managing-your-approved-project

(4) All research participants must be provided with the current Patient Information Sheet and Consent Form, unless otherwise approved by the Committee.

(5) The Committee is notified if any investigators are added to, or cease involvement with, the project.

(6) This study has approval for four years contingent upon annual review. A *Progress Report* is to be provided on the anniversary date of your approval. Your first report is due **14 December 2017.** You will be sent a courtesy reminder closer to this due date.

(7) A *Final Report* and a copy of the published material, either in full or abstract, must be provided at the end of the project.

Should you have any queries please do not hesitate to contact me on (03) 6226 2764.

Yours sincerely

Camille Kay
Ethics Administrator
Office of Research Services
University of Tasmania
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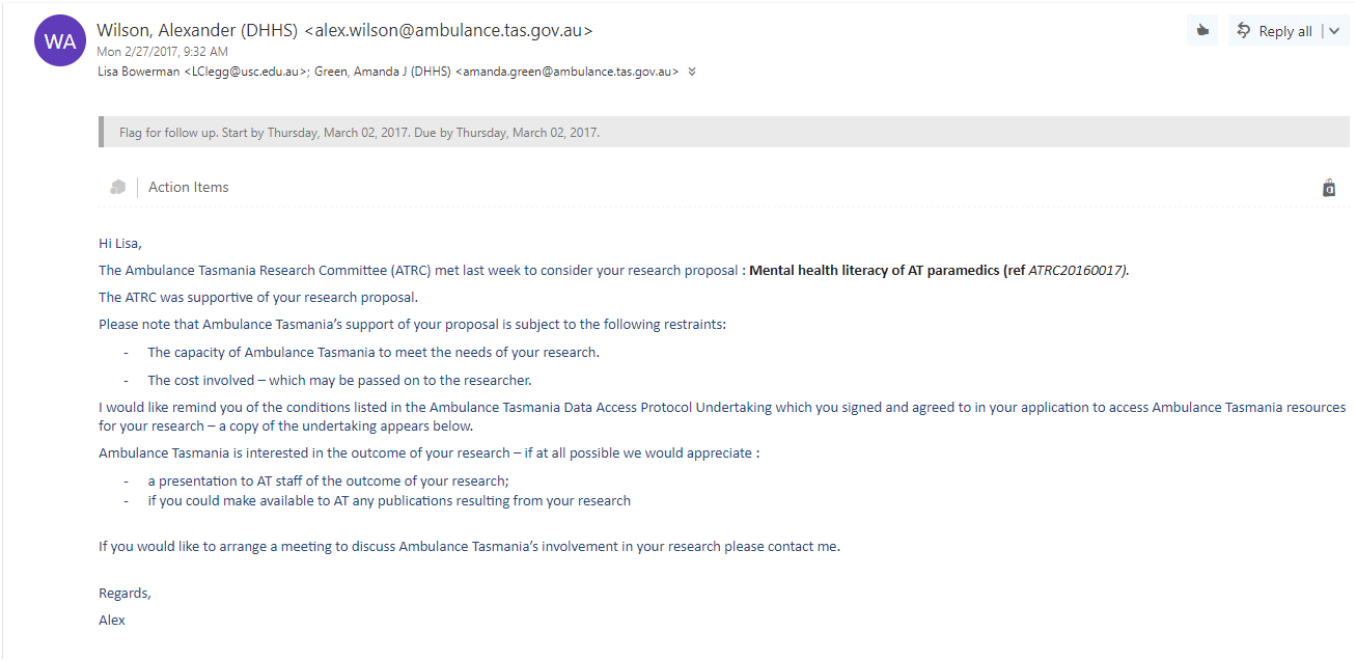
Hobart TAS 7001
Phone: (03) 6226 7479
Fax: (03) 6226 2765

Appendix 5.



WA

Wilson, Alexander (DHHS) <alex.wilson@ambulance.tas.gov.au>
Mon 2/27/2017, 9:32 AM
Lisa Bowerman <LClegg@usc.edu.au>; Green, Amanda J (DHHS) <amanda.green@ambulance.tas.gov.au>

Reply all

Flag for follow up. Start by Thursday, March 02, 2017. Due by Thursday, March 02, 2017.

Action Items

Hi Lisa,

The Ambulance Tasmania Research Committee (ATRC) met last week to consider your research proposal : **Mental health literacy of AT paramedics (ref** *ATRC20160017).*

The ATRC was supportive of your research proposal.

Please note that Ambulance Tasmania's support of your proposal is subject to the following restraints:

- The capacity of Ambulance Tasmania to meet the needs of your research.
- The cost involved – which may be passed on to the researcher.

I would like remind you of the conditions listed in the Ambulance Tasmania Data Access Protocol Undertaking which you signed and agreed to in your application to access Ambulance Tasmania resources for your research – a copy of the undertaking appears below.

Ambulance Tasmania is interested in the outcome of your research – if at all possible we would appreciate :

- a presentation to AT staff of the outcome of your research;
- if you could make available to AT any publications resulting from your research

If you would like to arrange a meeting to discuss Ambulance Tasmania's involvement in your research please contact me.

Regards,

Alex

Appendix 6.

School of Medicine

Project Title

Does mental health literacy influence confidence and attitudes of paramedics when managing patients with mental illness and suicide ideations?

Ambulance Tasmania Paramedics

1. Invitation

You have been invited to participate in research investigating the link between mental health literacy and confidence and attitudes of paramedics when managing patients with mental health problems and or suicide ideation.

The research team is made up of two experienced researchers and one PhD candidate. The two experienced researchers are employed at the University of Tasmania. One as a Senior Lecturer and Lecturer in the School of Medicine. The PhD candidate is employed at the University of the Sunshine Coast as a Senior Lecturer in Paramedic Science.

All researchers have expertise in health education.

Dr. Christine Clifford is a Senior Lecturer in the School of Medicine, University of Tasmania and Consultant Psychologist at the RHH.

Dr. Sue Pearson is a Lecturer in the School of Medicine, University of Tasmania.

Ms. Lisa Bowerman is a PhD candidate with the School of Medicine. She is also a Senior Lecturer in Paramedic Science at the University of the Sunshine Coast.

2. What is the purpose of this study?

This research aims to investigate the following:

1. The number of paramedic call outs to attend patients presenting with mental health problems and or suicide ideations by Ambulance Tasmania paramedics;

2. Mental health literacy in paramedics;

3. Attitudes, behaviors and confidence levels of paramedics when required to manage patients with mental illness and or suicide ideations;

4. Whether disparities in mental health literacy influence these attitudes, behaviors and confidence levels;

5. Investigate paramedic knowledge and understanding of the 2013 Mental Health Act;

6. Investigate confidence levels of paramedics to apply this legislation referred to above;

7. Compare paramedics understanding of mental health legislation pre and post the one day workshop.

3. Why have I been invited to participate?

You have been invited to participate in this research project because you are a paramedic currently employed with Ambulance Tasmania.

4. What will I be asked to do?

You will be required to complete an online survey through Lime Survey. This will comprise 64 questions including tick box and short answer questions.

If you feel uncomfortable about answering any questions asked, you may freely choose not to answer.

You will be able to complete this in your own time.

Consent for this research will be assumed if you choose to participate.

5. Are there any possible benefits from participation in this study?

The possible benefits stemming from this research are substantial in regards to mental health care in the out of hospital setting. Through your participation, you will have the opportunity to improve mental health literacy levels in paramedics which will lead to improved patient outcomes.

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6. *Are there any possible risks from participation in this study?*

You will not risk harm by enrolling in this research project. If at any time you feel uncomfortable about answering any of the questions posed, you may freely choose not to answer. If you experience any discomfort from the questions posed in the interview

Dr. Christine Clifford (Clinical Psychologist) will be available to assist or refer appropriately.

You can contact the School of Medicine Head of School Professor Ben Canny to discuss any concerns or complaints about the project or survey.

7. *What if I change my mind during or after the study?*

As participation is voluntary, you may choose not to respond to or return the survey. Responding to the survey documents your consent to participate.

8. *What will happen to the information when this study is over?*

De-identified data will be kept in a password protected file electronically. The electronic data will be kept for a period of five years and then destroyed.

Your personal details will not be collected; you will be identified only as an AT paramedic.

It is the intent of the researchers to complete and submit articles based on the data collected throughout the PhD candidature. These will then inform the PhD thesis. All participants will receive information about the data, any issues identified and strategies that will be implemented based on information found.

9. *What if I have questions about this study?*

If participants have any questions regarding this research, please feel free to contact any of the researchers listed below:

Lisa Bowerman: lbowerma@usc.edu.au 04

Dr. Christine Clifford: Christine.clifford@utas.edu.au 03 6226 4887

Dr. Sue Pearson: sue.pearson@utas.edu.au 03

"This study has been approved by the Tasmanian Health and Medical Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study, please contact the Executive Officer of the HREC (Tasmania) Network on (03) 6226 7479 or email human.ethics@utas.edu.au. The Executive Officer is the person nominated to receive complaints from research participants. Please quote ethics reference number H0012899

School of Medicine

This information sheet is for you as a participant to keep.

Appendix 7.

Brief Communication

A Suicide Awareness and Intervention Program for Health Professional Students

Eve De Silva, Lisa Bowerman, Craig Zimitat

School of Medicine, University of Tasmania, Tasmania, Australia

ABSTRACT

Background: Many emergency service professionals and health professionals play important roles in the assessment and management of suicide risk but often receive inadequate mental health training in this area. A 'Suicide Awareness and Intervention Program' (SAIP) was developed for first year medical, paramedical and pharmacy students at the University of Tasmania, Australia. The program aimed to increase students' knowledge and awareness about suicide-related issues, develop interpersonal skills around suicide screening and increase awareness of available support services. **Methods:** A 5-hour experiential SAIP was embedded within the curriculum. A pre and post evaluation of knowledge, skills and attitudes was conducted, with an open-ended follow-up survey regarding use of what was learned in the program. **Results:** Pre and post SAIP surveys showed significant improvement inknowledge and practical skills. Feedback from students and the counselling service indicated enduring impact of the program. **Discussion:** Participation in the SAIP increased knowledge, skills and attitudes related to the assessment and management of individuals at risk for suicide, and the application of this ability to students' personal and professional lives.

Keywords: Health professional education, medical students, mental health, paramedical students, pharmacy students, suicide prevention, undergraduate

Background

Suicide is a global public health problem affecting all parts of society.[1] Healthcare professionals play an important role in assessing and managing people at risk for suicide in the general population. General Practitioners (GPs), paramedics and pharmacists regularly interact with individuals at risk of suicide and facilitate referral to medical and support services. Health professionals themselves also have a relatively high risk of suicide because of the nature of their professions and due to occupational exposure to suicide and other critical incidents.[2-4] The higher risk of suicide also extends to undergraduate health professional students,[4] due both to the stress of their work and training and being in an age group at high risk of mental illness.

Suicide awareness training programs for those who first encounter individuals at risk for suicide–teachers, athletic coaches, first responders, primary health care practitioners—provide knowledge and skills to identify and support individuals at risk and refer them to relevant services.[5] Typically, these personnel would undertake suicide recognition and response training. Training programs for professionals who may first encounter an individual considering suicide have been demonstrated to provide positive outcomes in structured work environments, health care and community settings.[6] It is estimated[5] that training community-based health professionals to recognize and respond to individuals

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Appendix 8.


Book of Proceedings
Opening Doors...
The 14th International Mental Health Conference
5th – 7th AUGUST 2013
Outrigger Surfers Paradise
In association with
14
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Appendix 9.

This provides an example of how the theme of stigma and sub-theme of how stigma is displayed, emerged from the responses given.

Raw Data	Code identification	Sub theme development	Theme Development
"It manifests itself from your reaction when you see what pager comes I suppose chest pain versus psychiatric. A lot of people want to go but when they see the case they go oh not another psychiatric job" N 1 M ICP	*"oh, not another psychiatric job"*	Displays of stigma • Verbal • Non-verbal	Stigma within paramedic culture
"I believe there would be some of my colleagues who would say for want of another word or another phrase...oh not another bloody nut case...." N 5 M ICP	*"oh, not another bloody nut case"*		
"Definitely without a doubt. All these patients that we go to regularly, whether its weekly or a couple of times a month, people quickly get labelled as waste of time, waste of our resources" NW 10 M ICP	*"get labelled as waste of time"*		
"Oh absolutely. People make comment as soon as you get a page and use stuff like nutter and psycho and the crazy eyes and all that sort of stuff" NW 7 F ICP	*"nutter and psycho and the crazy eyes"*		
"Oh absolutely, absolutely. You can see when the pager goes off, you know the attitude is already there with most of the paramedics as it is with a lot of different genre of cases but I think especially with the mental health" NW 5 F ICP	*"you know the attitude is already there"*		

Appendix 10.

Statement of Co-Authorship

Statement of Co-Authorship Template

(form for candidate to include in the thesis)

The following people and institutions contributed to the publication of work undertaken as part of this thesis:

Name and School = **Lisa Clegg (Bowerman). School of Medicine**
Name and institution, Supervisor (if applicable) = **Author 1 Dr Christine Clifford. University of Tasmania**
Name and institution = **Author 2 Dr Paula McMullen. University of Tasmania**
Name and institution = **Author 3 Dr Stella Stevens. University of Tasmania**

Author details and their roles:

Paper 1, The assessment and management of patients presenting with a mental health crisis in the emergency setting: a literature review:
Located in chapter 2
Candidate was the primary author and contributed to the conception and design of the research project and drafted significant parts of the paper
Candidate contributed approximately 90% to the planning, execution and preparation of the work for the paper
Author 1-3 Authors contributed to the interpretation of the work by critically revising the paper.

Name and School = **Lisa Clegg (Bowerman). School of Medicine**
Name and institution, = **Author 1 Ms Eve De Silva. University of Tasmania**
Name and institution = **Author 2 Professor Craig Zimitat. University of Tasmania**

Paper 2, A suicide awareness and intervention program for health professional student:
Located in chapter 2
Candidate contributed approximately 40% to the planning, execution and preparation of the work for the paper.
Author 1 contributed approximately 40% to the planning, execution and preparation of the work for the paper.
Author 2 contributed approximately 20% to the planning, execution and preparation of the work for the paper.

We the undersigned agree with the above stated "proportion of work undertaken" for each of the above published (or submitted) peer-reviewed manuscripts contributing to this thesis:

Signed:

Dr Christine Clifford
Supervisor
School of Medicine
University of Tasmania
Date: 11/11/19

Professor Ben Canny
Head of School
School of Medicine
University of Tasmania
11/11/19

Signed: _

Dr Sue Pearson
Supervisor
School of Medicine
University of Tasmania

Date: 11/1/2019.